

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

{ STAMPED . . . SIXPENCE.
{ UNSTAMPED FIVEPENCE.

LEGITIMATE MINING.—PRELIMINARY NOTICE TO THE PUBLIC.

Mr. NICHOLAS ENNOR has for the last ten years in vain attempted to base mining on something like genuine grounds, but has been felled in his endeavours by parties who earn their living by bringing out mines, indifferent to their intrinsic value, or the observation of economy in carrying them out, their object being to appropriate as much as possible of the subscribed capital to their own use.

The usual way in which they proceed is, after obtaining a sett, they connect themselves with a few engine and material sellers, who take a large interest in the concern, and place themselves on the committee of management; they then state in the public papers about double the amount of money actually spent, against which they show the shares at a premium; indeed, they state anything that will suit until they have supplied the engine and all the ponderous materials, when they begin to dispose of their shares before they come to be paid for. They still continue in office, until it is discovered that the capital is fast diminishing, when they resign their seats, and the mine is left to be conducted by the parties who were so easily duped; they, not knowing anything of mining, and annoyed to find they had been made such easy prey of, throw up the sett in disgust; this is the reason it so often happens that mines are abandoned before they are fairly begun.

Consequently, I find it very difficult to recommend mines for investment, not from inability to form an opinion as to results, as I believe I am generally acknowledged to judge; the difficulty is, if the mine be good, the management is bad, therefore my friends have been constantly teasing me to bring out some under my own direction, and I have at last consented.

I observe metals are again advancing in price; and I know mines, properly selected, and fairly and economically carried out, do and will pay enormous dividends. It is my intention to purchase myself all engines and materials from whoever they can be had of best quality, and at the lowest prices—much of which can be bought second-hand, equally useful and at much less cost.

I also intend that the resident captain, assisted by myself, shall estimate the cost of all work before it is carried out, by which means I hope to economise the expenditure, compared with the present mine cost, full one-third. NICH. ENNOR.

The first mine I have decided on bringing before the public is—

THE ASHBURTON UNITED TIN AND COPPER MINES

(LATE OWLACOMBE), ASHBURTON, DEVON.

Capital £10,000, in 10,000 shares of £10 sterling each.

Deposit £5 per share on allotment.

The remainder to be paid in two calls, at such periods as may be hereafter agreed on. The mine to be worked strictly on the "Cost-book System," so as to avoid all liability to individual shareholders. The pursuer to be held liable for all arrears of calls or bills if allowed to stand over more than two months; if not paid within that time, he is to call a general meeting, to forfeit such shares to the company, to be resold at their discretion for the benefit of the shareholders.

DIRECTORS.

CONSULTING AND SUPERINTENDING ENGINEER AND MANAGER—Mr. Nicholas Ennor.

SECRETARY AND PURSER—CAPTAIN AT THE MINE—BANKERS—

PROSPECTUS.

Mr. NICHOLAS ENNOR has much pleasure in recommending to the notice of the public this celebrated old mine, which is known to have produced more tin than any other mine in the county of Devon.

The surface excavations on the lodes of this sett are immense, even exceeding those at Great Wheal Vor, or any other mine known in Cornwall or Devon. There cannot be a question but that thousands of tons of tin have been extracted from this mine, still also may be so in her infancy, as the deepest shaft is only about 60 fms. It would be superfluous to speak of this sett as being situated in a tin district, as it has been generally well known and celebrated for rich tin mines from time immemorial; indeed this mine was found formerly to be so productive that it caused Ashburton to be made a mining town, where the tin was taken to be coined and stamped before it was offered in the market, and it continued to be a mining town until within the last half century, in fact, up to the time the law was altered for this as well as all other mining towns. This is a sufficient proof that a considerable amount of tin was risen in this locality, and these mines ever stood foremost, yielding fortunes for the lucky adventurers.

It is still in the remembrance of many that when the mines were last worked they produced immense quantities of tin, almost sufficient to pay costs under the universal bad management of that period.

When last worked water-wheels were erected on it, but they had not half a supply of water, the result was men were kept on the mine waiting for the return of the season, a system of working which at that date nearly ruined every mine in the county, and half of those in Cornwall. It can now be proved that the workmen did not earn sixpence for each shilling they received; this, and the then expensive mode of working in raising the stuff to surface, stamping and cleaning the stuff with water stamps, &c., is a convincing proof that a mine, which at that time would half pay expenses, would now pay a large profit.

The former party, notwithstanding all the disadvantages under which they laboured, did not despair of the mine, but so sanguine were they of ultimate success, that they went 15 miles to obtain a better supply of water, to enable them to prosecute the bottom of the mine. They commenced this water course in land where they had no grant, under the idea that tin miners could divert any running water; this caused a tedious law suit, in which the company failed, the consequent expense of which was enormous. This suit having exhausted their cash, and the supply of water not to be had, their only alternative was to raise fresh capital to prosecute the mine by steam power, or abandon it. They made the attempt, and secured all their lift of pumps, with new buckets, &c., &c., 150 fathoms of which are now standing in the different shafts of the mine.

The cessation of operations is to be attributed to their desire to raise a capital of £50,000, of which £20,000 was to go into the pockets of the old adventurers for work done, but when their intention became known they, of course, failed to raise the desired sum on such conditions, and after quarrelling amongst themselves, the mine was neglected, and ultimately abandoned, with a large quantity of materials on it.

Having obtained a new grant of this sett, it is with great satisfaction that I state the lords of the soil, as well as mine adventurers, now know the value of the steam-engine, and are aware of its capabilities, consequently the lords have granted at the very moderate dues of 1-20th for tin, and 1-15th for copper, if worked by steam power. This mine can be quickly laid open, and every man so placed as to earn a shilling before he receives it.

Judging from the unanimous reports, the result of this mine must ultimately be profit to the adventurers, as can be seen by reference to a former account, where it shows that by an outlay of £5000 exclusively for mining purposes, they returned £14,000 worth of tin and copper, in less than three years, commencing in 1845, and very rich in quality, as it fetched the best price of any in the county; and further, that during the five ensuing years, tin to the amount of £37,000 was extracted; both these lots of ore were risen at an outlay of about £50,000, and sold at an average price of £10 per ton, whereas it would now bring £30 per ton, or for round numbers say double what it then fetched, or about £100,000; therefore, had the mine been fairly managed, it would then have paid a handsome profit; under the present price of tin it would have paid about £50,000.

On an inspection of the place, it will be seen that this sett was worked as three distinct mines. First—The Union or Eastern Mine, on a tin and copper lode; Second—North Great Beam lode, and South Great Beam lode, worked for tin. From South Great Beam, a branch is gone off nearly south to Union lode, where the tin is extended on until they meet with the Union lode, this branch produced good copper, and was worked away on tribute; as I have before stated, in working on this branch Union lode was intersected, but so much water leaked from it that they were afraid to drive, as it would let out such a quantity of water as to prevent the engine keeping Hobson's shaft clear; very excellent ore was taken from this lode where cut; indeed, I have now a stone in my possession worth 55 per cent. for copper, and 40 ozs. of silver to the ton.

The third mine was opened on Union lode, at Brother's shaft, about 50 fms. west of the end where it is intersected by the branch; on this part of the sett it was evident a water-wheel was fixed, and tradition says they raised hundreds of tons of copper; but the parties who worked the adjoining shaft, choked their shaft, which emptied itself into their mine, and this mine was filled with water, and in consequence, they were obliged to abandon this rich copper lode, leaving a lift of pumps with a brass working in the shaft—under these circumstances, this portion is a good speculation of itself, in fact, such as is not often met with.

There are also three or four very promising lodes, with old work inges on them, still farther south, which can be worked in conjunction with this mine, or separately; so adit has already been extended 90 fms. towards these lodes, but they have not as yet been cut.

In working these mines, it is not prospecting as it were in search of ore, as it is well known by hundreds to be there; witness the quantity of ore that has been returned since the last company ceased working—a miner, an invalid, with four assistants, have risen £5000 worth of tin, and they are now returning nearly a ton of tin per month from the refuse.

These mines can be laid open by means of two steam-engines, one for pumping, and the other for drawing the stuff to surface and crushing the ore. The ground is very easy for excavating shafts, levels, and pitches; pitches that cost in the last working 5s. in £1 can now be worked for 2s. 6d. In fact, it is apparently a most extraordinary mine, as every one speaks well of it, stating it to be a good mine, ruined when last worked by needless expenditure and universal bad management.

It will be seen on perusing the report of Capt. Hosking (an old practical tinmer of fifteen years standing in the mine, and one who drove scores of fathoms of the levels on tribute, by which he did well), that in the back and bottom of the lower level at Hobson's shaft, there is a lode now standing worth £60 per fm. Now if it be only half as good as reported, shares will be at a premium before the water is out, which can be accomplished in a few months, the mine being shallow.

If the lords of it should permit, I should have stamps erected, and from the adit send tin to grass valiant to pay a dividend (as they are now doing at Great Polberro), before commencing to open the mine, when in lieu of giving me away, as I now propose in free shares as it were, I should be enabled to sell the mine at a very advanced price.

CAPT. WILLIAM HOSKING'S REPORT.

Ashburton, Aug. 16, 1857.—I beg to hand you a few observations on the OWLACOMBE, or ASHBURTON UNITED MINING SETT; and from my long experience in these mines, having worked them from 15 to 19 years, I believe I have it in my power to give considerable information, both as regards the nature of the country and the character of the lodes. The extent of the sett is very great, being one mile wide, and one mile on the run of the lodes, of which there are eight already known, five of them tin, one a champion copper lode, and the others producing both copper and tin. The lodes run about 22° south of east and north of west; the stratification is a beautiful soft killas, and near the granite junction. The surface workings are of immense extent, and probably executed many centuries since. Within the last 20 years, I may safely say £100,000 worth of tin and copper has been raised and returned from four lodes only, and I have myself, as a tributer, broken some hundreds of tons of tin from these. Previous to my knowledge of these mines, vast quantities of both tin and copper had been raised and sold, to what extent it would be impossible for me to say; here you will naturally say, how did the mines become abandoned? It arose from want of sufficient machinery to keep the levels clear of water, the only power being that of water, which invariably fails for five or six months in the year; unfortunately also, the company under which I worked claimed the right of taking water and conveying the same without consent or purchase, the consequence was a law suit, entailing a loss of from £15,000 to £20,000 to the adventurers, who failed in establishing their claims. There is one common adit running through these mines. The first shaft

intersected by it is the Union shaft, at 12 fms. from surface; the next going west is Hobson's shaft, intersected at 14 fms.; the third is James's shaft, intersected at 16 fms.; the fourth, Parry's shaft, at 18 fms.; the fifth, Murray's shaft, at about 23 fms. from surface. I have so far given the depth of the different shafts to the adit. I will now inform you of the depths of these shafts below the adit, the Union shaft is 47 fms., here large quantities of tin were raised; Hobson's shaft is 59 fms., here immense quantities of tin have been raised of a superior quality, and many tons of copper of highest produce, and there is now in the bottom level of this shaft a splendid course of tin for a great many fathoms in length, worth from £20 to £30 per fm.; James's shaft is 35 fms. under the adit, where large quantities of tin have been raised; Parry's shaft is 45 fms. below the adit, here great returns of tin have been made, and good profitable ground still remains; Murray's shaft is 35 fms., here quantities of tin have also been raised. I have stated already that all the mineral sold within the last 20 years was raised on these lodes, consequently four remain unworked—two of these in particular, called the Brothers, a champion copper lode; and the Lady's, a tin and copper lode, the former, underlying south, and the latter underlying north, consequently they will interest each other in depth. Taking all things into consideration, the quantity of work done, the large returns that have been made, the beautiful nature of the ground (killas near granite), I am persuaded that a finer sett is not to be found in the two counties; and were steam-power erected sufficient to command the whole of the lodes, I think it would be found to be a second Great Wheal Vor. I should say that a capital of £10,000 would be sufficient to fully develop and profitably work three of the lodes in this extensive and valuable mineral property, enabling the erection of from a 50 to a 60 in. cylinder engine for pumping, and a steam-engine for hauling and stamping, with all other necessary appliances. From my long experience in the Ashburton district, and more particularly in that part which comprises the Ashburton United Mines, I can with confidence concur in the statement set forth in the prospectus, that the return of tin and copper from these mines have for centuries given celebrity to the district. I am only surprised that such a valuable mineral property has been neglected for such a length of time. WILLIAM HOSKING.

MR. WILLIAM LEWARN'S REPORT.

Ashburton, Aug. 30, 1857.—Being informed that Ashburton United is about to be re-worked, it is with pleasure I make the following remarks, first noticing that I am an old miner, and worked as a tributer in nearly every part of her. When I come to reflect on the state she was left in, and the present high price of tin, I consider myself fully justified in stating it is in my belief that this is one of the best mining speculations in the county. See the mining operations during the last working, when I think we got only £42 per ton for the tin. There are hundreds of fathoms of ground now open in the West Mine that will pay well on tribute. In the bottom level, going east, there is now a strong lode, carrying good tin throughout. In the bottom of this level they sunk after a good lode, but they could not go far for water. In the East Mine, on Union lode, there are also hundreds of fathoms of ground standing that will pay on tribute, and some of the lodes produce excellent copper. There are many other promising tin and copper lodes in this sett. I firmly believe if these mines resume working with good machinery and management, they will soon class with the best in the county. When I look around and see thousands and tens of thousands of pounds spent on setts containing no ore of any kind, I am more than surprised that this valuable piece of ground should have so long remained idle, as the ground is easy, and a large sum would not be required to bring her out. No person who knows the mine can guess but that immense quantities of tin and copper will be taken from the lodes that have already been partially laid open, independent of all the side lodes not yet worked on, known to contain good tin and copper.

WILLIAM LEWARN.

I might annex hereto a legion of favourable reports, from both practical and professional men, but consider my own observations and the quantity of ore that has been returned, with the substantial remarks contained in Capt. Hosking's report, and in that of an old tributer, sufficient.

NICHOLAS ENNOR.

RIVER TAMAR COPPER MINING COMPANY (LIMITED).

Capital £10,000, in 10,000 shares of £1 each.—Deposit 5s. per share.

With power to increase.

Calls not to exceed 5s., at intervals of not less than six months.

OFFICES,—10A, KING'S ARMS YARD, MOORGATE STREET.

The River Tamar Copper Mining Company has purchased the sett hitherto known as the South Devon Great Consols Mine, under which appellation it has been prosecuted for upwards of four years last past, with the greatest vigour and judgment.

The mine is situate in a stratum of granite and killas, the former being exactly similar to the granite which yielded such great results at Gunnis Lake; and the latter being in every respect like that which has yielded such unprecedented returns at the Great Devon. The presence and junction of these two formations are highly favourable to good deposits of copper, and the minerals by cross-courses, which are not infrequently to be met with, to the development of profitable copper mines. The character of the lode at the shaft is wider than the general run of granite lodes, which is also a promising feature, and it runs nearly vertical, which is also a further advantage. Goodness is found in the lode as low as the 58, a good indication of a deep and profitable mine; and, lastly, the kind of copper ore which is found in this lode is of the highest possible quality, so that the smallest quantities would be remunerative. In these particulars, every known circumstance which tends to great success exists, and at the present time a discovery of a remunerative deposit may be made at any moment.

Applications for shares, according to the annexed form, accompanied by the receipt of the bankers of the company for a deposit of 5s. per share on the number of shares applied for, may be made at the offices of the company, and all applications by former adventurers in the South Devon Great Consols Mining Company will have precedence.

FORM OF APPLICATION FOR SHARES.

To the Directors of the River Tamar Copper Mining Company (Limited).

Offices, 10A, King's Arms-yard, Moorgate-street.

GENTLEMEN,—I request you to allot me shares, of £1 each, in this company; and I hereby agree to accept the same, or any less number which you may allot me, and to execute the Articles of Association of the company when required; and on failure so to do, I consent to forfeit the deposit of 5s. per share now made with the company.

Dated this day of 1857. Residence, (State if an adventurer in the South Devon Great Consols Mining Company, and numbers of the scrip certificate held.)

SAFE AND ELIGIBLE INVESTMENT.—A FIRST-RATE OPPORTUNITY now OFFERS for any one wishing to lay out a small capital, with a very fair prospect of its being doubled in a short space of time.

The property allotted to consists of about 250 acres of LAND, in the very centre of a MINING DISTRICT, and contains extensive COPPER LODES. A very promising young mine is at work thereon, which is in a fair way to become one of the richest in the neighbourhood. It is situated in the most healthy part of Devonshire, about 24 miles from an excellent market town. A good house and the requisite outbuildings, with a very trifling outlay, might be made a very nice country residence. Good fishing and shooting in the neighbourhood. The proprietor would have no objection to take other description of property in exchange for the same.

Such an opportunity as the present seldom occurs; and persons who speculate at all, but particularly such as lay out money in mining, are invited to look over, and consider whether it is not well worth attention.—For particulars, apply to Messrs. LITTLE and WOODCOCK, solicitors, Ker-street, Devonport.

TREDINNICK'S LIST OF PRICES OF BRITISH MINES.

RAILWAYS, BANKS, &c., published weekly, and forwarded by post at a charge of £1 1s. annually. Fluctuations in market value faithfully recorded, with Comments on the progress of Dividend and sound Progressive Mines. Gresham House, Old Broad-street, London.

INVESTMENTS IN BRITISH MINES.

Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

BRITISH MINES CONSIDERED AS AN INVESTMENT.

Recently published, by J. H. MURCHISON, Esq., F.G.S., F.S.S.

Pp. 359; price 3s. 6d. by post 4s. Mr. MURCHISON also publishes a QUARTERLY REVIEW OF BRITISH MINING, giving, at the same time, the Position and Prospects of the Mines at the end of each Quarter, the Dividends Paid, &c. The REVIEW for the Quarter ending the 30th of June, contains a Map of the Great Wheal Vor and Lelant Mining Districts, price 1s. Reliable information and advice will at any time be given by Mr. MURCHISON, either personally or by letter, at his offices, 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

OPINIONS OF THE PRESS.

Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—Mining Journal.

The book will be found extremely valuable.—Observer.

A valuable little book.—Globe.

A valuable guide to investors.—Herald.

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—Morning Herald.

Of special interest to persons having capital employed, or who may be desirous of investing in mines.—Morning Chronicle.

Of great value to capitalists.—Sunderland Times.

Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison.—Leeds Times.

As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—Derby Telegraph.

To those who wish to invest capital in British mines, this work is of the first importance.—Welshman.

This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide.—Plymouth Journal.

All who have invested, or intend to invest, in mines, will do well to consult this very useful work.—Ipswich Express.

This is really a practical work for the capitalist.—Stockport Advertiser.

Persons desirous to invest their capital in mining speculations, will find this work a very useful guide.—Warwick Advertiser.

It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom.—Sheffield Free Press.

Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work.—Monmouth Beacon.

Every person connected, or who thinks of connecting himself with mining speculations, should possess himself of this book.—North Wales Chronicle.

A very valuable book.—Cornwall Gazette.

All who have invested, or intend to invest, in mines, should peruse this able work. We believe a more useful publication, or one more to be depended on, cannot be found.—Plymouth Herald.

Mr. Murchison will be a safe and trustworthy guide, so far as British mines are concerned.—Bath Express.

Is deserving the attention of every one who seeks profitable investment of his capital.—Brighton Examiner.

With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital.—Poole Herald.

To capitalists the work will prove very serviceable.—Birmingham Mercury.

CORNISH MINE PHOTOGRAPHS—No. XIV.

"THE MINER'S WEDDING."

Improvident as it must be admitted some of the working miners are, it must not by any means be supposed the generality of them are so, many among them displaying anything but that coarseness of conduct their rough exterior and laborious employment would lead a stranger to expect, presenting a striking contrast to the "navvies," whose daily vocations in some measure resemble theirs.

To do full justice to our subject it will be necessary to present two photographs of the same, taken from different aspects; the one will be found in the last and in the manner of Teniers and Brauwer, the other more resembling the pictures of Watteau or Andrews. Though so perfectly dissimilar in style, they are, nevertheless, correct, the period of time in some degree causing the difference.

To those who know what miners' residences were in Cornwall 30 or 40 years since, to the traveller who has noticed the wretched straw or rush thatched hovels frequently passed in the wild moorland districts, or to those who have seen the impromptu erections of the navvies on railways, or to Irish and Welsh mountain excursionists, these cabins need no description, to those who have not it may be necessary to state that they usually consisted of a room, sometimes two, formed of walls generally built without mortar, and of the very rudest masonry; not unfrequently by the miners themselves; or by a hedger, in the same manner as he erects the hedge dividing fields. In these there were seldom any kind of flooring but the earth, and no ceiling but the thatch, supported by rafters of the sawn Scotch fir poles or old mine timber, and secured thereto by straw spun ropes, from which large stones are hung to the eaves. In each room was a window of four panes of glass, about 10 inches by 8; seldom were they larger, glass being then very expensive; frequently an old black bottle built into the wall with the neck outward was substituted. A chimney and ingot (or chimney corner as it is called) was always provided, as was a horse shoe nailed over the entrance, to protect the house from "pikies" (Gypsies). There, too, as certainly were to be seen the piggery and horrible mounds in front of, and in immediate proximity to, the door. Sometimes these wretched hovels were built of "clobber"—i.e., clay and straw. These were reckoned of superior order. If of two stories, were usually walled above up to the first and the upper part only of "clobber." These were of comfortable dimensions, and were really pleasant cottages, enduring for many years. Vast numbers of houses are even now built of these materials in Devon and Cornwall, though gradually giving way to stone, brick, or slate. In such huts as we have before described (a few scattered here and there may still be seen) have many an honest couple brought up numerous families without reaping, or even deeming theirs a hard lot! To such places have many a youthful bride been taken, deeming herself but to be proud and happy to be its mistress! The custom for colonies of families to live in a large house, as in many of our towns and cities, never prevailed in Cornwall, every one endeavouring, if possible, to have their own dwelling. As soon as a young man is able to support himself he was expected, and it is not surprising he was glad, to seek a fresh abode, either lodgings, or marrying and keeping house. These circumstances led to the habit of early marriages so prevalent in this county, where youths out of their teens were frequently parents. A miner lad's pride and ambition is first a watch, then a gun, a clock, a chest of drawers, a bed, and the last and best a wife; of these almost every miner in the two counties possessed, besides olive branches. The wedding-day was generally postponed as long as decency would permit; this was the rule not the exception, and was carried out with unblushing effrontery. Though such important and rapid improvements in the morals and tone of society in the lower orders have undoubtedly taken place within a few years, this shocking laxity amongst them is still to be regretted. It is, however, much less the case now than formerly. Fewer instances of illegitimacy occur in Cornwall than in any other county, reasons generally ending in marriage. We should not have alluded to this subject, but truth must be told, and may perhaps do good by exposure. At the time referred to the taste of the people were exceedingly gross. The wedding was then little better than a drunken spree for the bridegroom and his companions, continuing their orgies for three or four days, or until their little savings were expended. After the ceremony (properly so termed) the wedding party repaired to the public house at the church-town in their best array, where a fiddler or two were provided; eating, drinking, dancing, and smoking being the order of the day as long as they could stand their effects. Drunkenness of course in the youths was the consequence; and many acquaintance formed on such occasions led to the necessity of a repetition of the scene a few months subsequently by more than one couple of the "young people." No better opportunities of amusement then offered, one sought to prove their evils or improve their morals, so on they were drinking and rioting until their cash was out, and then to work for man.

This is our Teniers or Brauwer picture,—now for the Watteau-like presentation.

Unless persons have actually witnessed they can scarcely believe the amazing change that has come over these people in their habits of domestic comfort, personal appearance, and demeanour. The females are now particularly neat and tidy; on Sundays and holidays they dress remarkably well; indeed it is surprising to see their gay attire; true they have rather a reprehensible taste for gaiety and display, but not of the gaudy, vulgar, description some localities present. The men, too, are dressed; usually in good broadcloth suits; of course we now speak of the steady and more respectable portion of the community, who are so numerous as to form the rule. The temperance movement has been one of the main instruments in this mighty change. In almost every mining town and village are houses and terraces built by these people out of their hoarded earnings from this most admirable source. Thousands, by abandoning the glass, have been enabled to secure the means of emigration, and after a few years in Australia or California to return with a competence or remain in the colonies as wealthy settlers; their mining experience being there turned to good account. Many mines in Cuba and South America are managed by Cornish agents and worked by Cornish miners. These return with considerable sums, as well as their tastes improved by travel and mixing in better society. All these circumstances, combined with the steady demand and regular remuneration for labour experienced of late years, together with the improved discipline of the church, chapel and Sunday-schools, have led to and effected the amazing change.

The cottage gardening societies form another important element of improvement, and are rapidly extending. The tendency of such establishments is so obvious as to need no comment. A taste for flowers and the comfort of a kitchen garden have their due effect.

The equal hut, with its mud floor, has given way to neat cottages with paved or brick floors, and "planch wooden chamber." Now there are always three or four rooms in their cottages, so that the families are divided, and that mixing of the sexes and huddling of children does not exist. Improved dwellings have much more to do with the elevation of character than most economists give credit for. The furniture is generally in consonance with the pretensions of the dwelling, as is also the cleanliness thereof. In this, as in all the rest of the domestic comforts, a marked difference can be observed, though much still remains to be accomplished; the intolerable cesspool being still an eyesore, and an olfactory offence; yet the progress is steady, satisfactory, and continuous.

The introduction of railways and pic nic excursions has done much good. These are now the usual modes for spending the wedding-day; on any of the great festivals, such as Easter, Midsummer, or parish fairs, many a smart party of six or eight may be seen off on such a trip in the conveyances. The Cornish Mount is one favourite resort. The Lizard, Rock, Land's End, or some of the beautiful coast scenes, are largely patronised on such occasions. As they are worth seeing, we will accompany a wedding party to one of them. From Redruth or Camborne they come by rail, as smart and hilarious as can be, with well filled baskets ofables, and a fiddle or flute; many of the miners being good musicians, and is generally of the party. These wend their way to Murazion, where, we will not arrogate too much, and claim all as teetotallers, they wet their whistles with bottled porter, rum shrub, or port negus; then off to St. Michael's Mount. After a ramble round the rocks, and an examination of the copper and tin lodes, there denuded by the sea, they visit the castle, and dare the dangerous, silly feat of sitting in St. Michael's chair.

* On the top of the tower at St. Michael's Mount are the remains of an old lantern, in which a light was formerly kept as a beacon for mariners. It is now disused, and the upper part gone, thus forming a rude kind of chair, in which the dangle his feet some hundred or two feet high. The slightest slip would cause a fall, and certain destruction. Strange to say, no fatal accident has been recorded, though the place cannot be viewed without a shudder. The object is a silly tradition, but whoever goes first into the chair remains the governor after marriage. This foolish would-be witicism is the source of great glee, as may be supposed, on such occasions.

Men are often popularly called scientific who are merely acquainted with familiar applications of science; but this second-hand sort of science would be of little avail for the present purpose. The officer in question should be really well-grounded in first principles, so as to have the entire command of the special knowledge that might be brought to him in each case. I think also that he ought to be a large-minded man—one who would be capable of impressing others by the moral force of his character and bearing, not a mere clever man, distinguished for his sharpness and readiness in supplying temporary expedients. And here it will be useful to quote the opinion of Coleridge on this point, in his *Coleridge*, says: "I think that, upon the whole, the advocate of a position in a question unfavourable to his moral and political views, *uses his intellect* also to his higher powers. Therefore, I would recommend an advocate to *use his intellect* to his leisure to some study of the metaphysics of the mind, or metaphysics of theology; something I mean which shall call forth all his powers, and centre his wishes in the *investigation of truth alone*, without reference to a side to be supported. No student give such a power of *distinguishing* as metaphysical; and in their natural and unperverted tendency they are ennobling and exalting. Some such studies are wanted."

contrast the operation of legal studies and practice, which sharpen indeed, but, like a grinding-stone, narrow whilst they sharpen."

I trust it will thus appear that while I admit the essential importance of appointing a really competent officer to discharge the duty of preparing the proposed report, yet the difficulty of finding such a person is not insurmountable.

Office for Patents, 30, Chancery-lane.

Original Correspondence.

NORTH TAVY MINING COMPANY.

A general meeting of adventurers was held at the offices of the company, Warford-court, Throgmorton-street, on Tuesday, Mr. T. C. SMITH in the chair.

Mr. Codd (the secretary) read the notice convening the meeting, and the following report:—

Sept. 5.—Since the general meeting in June, the clearing of the deep adit has been completed to the end, which is 30 fms. west of the deep shaft. The driving beyond the shaft is on the cross-course, and no lode has been seen to the west of it at this deep point. The operations at this point have been suspended, to give time for the erection of a whim, but not having received orders from the committee I have not proceeded with it. From the reports of those who professed to have known the mine when last worked we were led to expect that some ore ground would have been met with at the deeper parts of the mine, but I much regret to find that every part here is very poor. The new whim has been erected on Gill's shaft, and the 20 cleared to a point where we found some good ore in a large lode, but the ventilation was so imperfect that we were obliged to rise up through the shallow adit, which we did on the south and softer part of the lode; this part produced a little ore, but not to value; I had it assayed, and found the produce 1½ per cent., therefore of no commercial value. We have in the past week been taking down the ladder part of the lode, which produces some good ore, but is not so good as I had hoped to find it; this lode although not rich is of great strength and promise, and certainly ought to be further prosecuted; and under our present circumstances, I recommend a winze to be sunk on its course in the bottom of the 20, right under the rise. I also would recommend that the 30 be driven west from Gill's shaft towards the point to which the winze would turn; this level is driven only about 3 fms. west of the said shaft, and there are 30 fathoms of ground between the two points, which is, judging from the appearances in the 20, of the most promising character, and which, in my opinion, cannot fail to be productive of good results. The expense of these operations would be, probably, about 200l. I am myself a large shareholder, and am willing to go on with my portion of the works proposed. I do not advocate doing more at the deep adit before something further is seen at the shallow point alluded to.—R. WILLIAMS.

A statement of accounts was submitted, from which the subjoined is condensed:—

Balance last audit	£ 65 8 1
Mine cost and merchants' bills—May	40 19 2
" " " " " " " "	59 16 0
" " " " " " " "	49 19 7
Printing, &c.	5 9 6= £221 10 4
Carriage of ore	3 4 11
Calls received	183 4 0= 183 8 11

Balance against adventurers..... £ 36 1 5

Mr. Codd referred to the former report of Capt. Williams, and by which it would appear at the present time that the mine had good tribute pitches, and making monthly returns at least from 15 to 20 tons of ore.

Mr. Codd complained that he had not much confidence in Capt. Williams, and wished to know whether there was any method of ascertaining the amount of work done?

Mr. Codd considered the captain a trustworthy man, but they could not tell how many fathoms had been driven.

Mr. Codd said a large sum of money had been spent for the little work done.

The CHAIRMAN was of opinion that the best course to adopt would be to refer the report to the committee, to obtain some further explanation from the captain, as it was not considered far from satisfactory.

Mr. Codd said, the captain had stated they had nothing to do but to rise through a course of ore, and send hundreds of tons for sale.

The report and accounts were unanimously adopted, as also a resolution calling upon Capt. Williams to give some further explanation of his report presented at the present meeting. Two of the shareholders had sent in their relinquishment, which it was agreed to accept upon paying their share of the liabilities up to the present time. A call of 6d. per share was made.

Mr. Codd formally resigned his appointment as secretary, it was accepted, and the question of electing a successor referred to the committee.

A vote of thanks to the Chairman, and to Mr. Codd for the able and energetic manner in which he had fulfilled his duties as secretary, terminated the proceedings.

DRAKE WALLS MINING COMPANY.

The general meeting of adventurers was held at the offices of the company, Moor-gate-street, yesterday, Mr. W. J. DUNFORD in the chair.

Mr. HIRAN WILLIAMS read the notice convening the meeting, and the minutes of the last, which were confirmed.

The CHAIRMAN read the following report:—

Sept. 8.—The 92 fm. levels are extended east and west of Matthew's shaft 25 fms. 1½ in. on the course of the branches. The improvements in the 92 west, in the direction of Bettley's shaft, still continues, and may be regarded as a favorable change, being the deepest point of the mine. A communication has been effected by a winze from the 50 to the 92 fm. levels; the branches in the winze have been of a productive character. We have commenced to stop in the back of the 92, east of the winze, in moderately productive tin ground. The branches in the 92 east are of a very promising character, at present intersected with tin and copper ore; we have about 15 fms. to drive east to get under the copper ore gone down in the bottom of the 92; the strata being of a favorable character, we hope to make good progress in that direction. The 40 east has been extended since last meeting 14 fms. through productive tin ground; at the present time the ground is not so easy of progress, although the branches are moderately productive. We have three stopes working in the back of this level in good tin ground. The branches in the 70 east are not quite so productive, having intersected a small cross-course; the ground being wet and troublesome makes the progress slow. There are two stopes working in the back of this level in coarse tin ground. The 76 cross-cut north is being driven by two men and two boys at 1½. 10s. per fm., including tramming and all costs, and is extended 2½ fms. north towards the great north lode. Should the underlie of the lode continue agreeable to former calculations, there remains about 40 fms. to reach the lode, which will occupy, at the present rate of driving, about 14 months. We have an increase of water in the cross cut, which gives us reason to expect an intermediate lode or branch not as yet seen to surface. The object of the cross-cut is to more fully develop the north lode further west, and at a much deeper point than the deep adit, and of which we entertain a very high opinion. The branches in the 60 east are producing saving work; we have two stopes working in the back of this level in coarse tin ground. There are two stopes working in the back of the 50 in somewhat improved tin ground. The stopes in the back of the 40 are yielding some good work, and as we have a great height and length of whole ground at this point, should the same continue productive, and of which we entertain no doubt, we have sufficient stopes laid open at this level to employ twenty or thirty men for some years. We have recently proved, by cross-cutting south, the main tin branches are yet in that direction, and on which we have commenced operations. The 90, east of Bettley's shaft, is extended about 3½ fms; the branches are assuming a more favorable appearance, and produced occasional good stones of tin, molybdenum and wolfram; but little has been driven in this level during the past six weeks, in consequence of the south or footwall in the old workings giving way to a slide at the 60 feet of Bettley. We have found it a work of the greatest importance—nearly all our time and attention, day and night, have been devoted thereto—to secure the shaft against the old workings of the abandoned quantity of good red pine, and we are happy to say the same appears to be secure up to the present time, and in a forward state of completion, and we hope to send the kibble to the 60 on or about Saturday next. We are now filling the old workings west of Bettley's shaft with little from surface as fast as possible, which will contain a great quantity of stuff. The deep adit is being driven by two men and two boys in favorable ground, at 2½. 5s. per fm., and we are pleased to say a favorable change in the appearance of the lode has taken place, which is from 4 to 5 feet wide, composed of immense quantities of molybdenum, quartz, peach, pryan, &c., and is all that point of our operations. A communication has been effected by a winze from the 50 to the 92 fm. levels; the branches in the winze have been of a productive character, as we extend west we gain a great height of back, and shall intersect the Drake Walls cross-courses, which leads to expect the lode will become productive of copper ore. On reviewing our prospects for the past quarter, we are happy to say they are somewhat improved, and we have every reason to believe this mine will continue in a profitable and productive state, with a fair price for tin ores, &c. There are 408 persons employed in and on the mine.—T. GASCOIG, J. ANDREWS.

A statement of accounts was exhibited, from which the subjoined is condensed:—

Balance last audit	£2084 19 6
Tin sold	5171 5 7
Copper	108 15 0
Arsenic	90 0 0
Old materials	14 15 4= £7469 15 5
Mine cost, April, May, and June	£4403 5 4
Interest and discount	8 18 8
Disbursements	24 10 2
Fourth dividend	1583 7 6= 6000 1 8

Balance in favour of adventurers..... £1469 13 9

The CHAIRMAN said the report and accounts were so clear that it required very few observations from him. The balance would have been much larger had it not been for the fall of tin in May. They had since obtained a good price for the tin, and the serious accident that had happened at the shaft was repaired, so that the mine was now in a better state than ever. He considered they had a very good balance, and the directors recommended that a dividend of 2s. per share should be declared. He would conclude by moving that the report and accounts be received and adopted.

Mr. ROSEWATER seconded the resolution.

Mr. BERRY said the stores in hand appeared large.

The CHAIRMAN reminded the meeting that it included the July stores, and that every liability was brought up to the present day.

Mr. HODGSON considered the 203 shares in hand an asset, and that they might have a 2s. 6d. dividend.

The CHAIRMAN replied, that if they divided 2s. 6d. to-day they would divide more than they earned, which he considered a dangerous course to pursue. (Hear.)

The question would be brought before them as to the disposal of the shares, and the amount would then come into the next account. By straining the dividends they would decrease the value of their property, but fair ones would increase it.

Mr. HODGSON sincerely thanked the Chairman for the able manner in which the business had been done.

The report and accounts were then unanimously adopted.

The CHAIRMAN said the next question was the dividend, and in proposing 2s. per share he was glad to remind them that the July cost was paid, and that they had begun the quarter with a profit of 500l.

A dividend of 2s. per share was then unanimously agreed to.

The CHAIRMAN said the next resolution was to authorize the committee to sign an agreement with Messrs. Jacobs and Oxland, of Plymouth, for the disposal of the certain waste from the dressing of the tin, which was the tungstate of soda, that was now lost. Mr. Oxland proposed to erect machinery at his own expense, to make it commercially valuable; and, in return, to supply free of cost the soda the company consumed in dressing, which now cost them about 400l. a year.

Mr. BERNARD said Mr. Oxland had also granted to the company the right of working his patent for dressing the tin, free of any charge.

Mr. HODGSON considered the arrangement highly beneficial to the company, and the shareholders he was sure would be obliged to the committee for carrying it out. A formal resolution, authorizing the directors to sign the agreement on behalf of the adventurers, was then unanimously carried.

The CHAIRMAN said, the next question was the sale of 203 shares, vested in Mr. Tyrie and himself on behalf of the shareholders, and which he considered had better be disposed of by public auction.

A very long, angry, and personal discussion ensued respecting some other shares, which it was stated had been unfairly obtained and held.

The CHAIRMAN contended that the committee had done all in their power to recover them. He concluded by moving that the 203 shares standing in the names of Messrs. Tyrie and Dunford should be disposed of by public auction, for the benefit of the shareholders.

Mr. ROSEWATER seconded the resolution, which was carried unanimously.

The Chairman, Messrs. Bettley, Bell, Bailey, and Gill were re-elected to the committee of management, and cordial votes of thanks the Chairman and agents of the mine terminated the proceedings.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

LEGITIMATE MINING.—In our advertising columns will be found a preliminary notice and prospectus of the ASHBURTON UNITED TIN AND COPPER MINES, presented to public notice by the celebrated Mr. NICHOLAS ENNOR, who has for many years enjoyed the confidence of the mass of mine speculators. We would here observe there are none infallible, but we shall be only expressing the almost universal opinion when we state that so far as a person can judge by indications of the position of the hidden treasures of the earth from a superior knowledge, and by long practical experience, Mr. Ennor has been most successful—seldom, if ever, as we believe, having recommended parties to mine in the wrong direction; therefore, we cannot but state we are highly pleased to find he has at last determined to bring out some mines under his own superintendence. His ability will now be fairly brought into play in directing operations, and we have every reason to believe there will be few, if any, of the abuses and shortcomings in the mines under his guidance he has so long and indefatigably endeavored to obviate in some others, whilst acting in the capacity of an inspector of mines. It will be seen by the prospectus, that the Ashburton United Mine set is a most promising one, from which immense quantities of tin were extracted by ancient miners, and from surface appearances, it is certainly the most extensive seat of operation in either Cornwall or Devon. Indeed, we are only surprised that we are not more fully acquainted with the mine, yet it is on the prospectus, that most satisfactory reasons are given by Mr. Ennor. It appears, when last worked, the original shareholders, after the unfortunate trial respecting the water-course, bethought themselves of a plan to repay with compound interest the expense they had been in in defending the law suit—namely, by reorganizing the mine, and making a fresh start with a capital of 30,000l., 20,000l. of which they intended appropriating to their own use; but when this became known they did not succeed, and the mine has since lain dormant; but she must now, under the direction of such an enterprising man as Mr. Ennor is known to be, soon begin to develop herself, and prove to the world the superiority of mining over other investments, when directed by competent persons. We find the mine is to be brought out in a fair and straightforward manner, in 1000 shares (none free), at 10l. per share, 5l. per share to be paid on allotment, with which it is confidently expected sufficient steam power will be erected, the mine got in work, and a course of tin worth 60l. per fathom, now standing in the bottom of the shaft, laid open. It should also be understood that the whole of the subscribed capital will be legitimately spent in laying open the property. In conclusion, we can only say we wish Mr. Ennor the success he so richly deserves; and we expect much, and we prognosticate that neither ourselves nor the public will be disappointed.

WHEAL MARGARET continues to look as well as can be desired. The dividends already paid this year amount to 13l. per share—4l. in February, 5l. in May, and 4l. in August; and it is expected that the next, in November, will be 5l., or more, which will make for the year 18l. per share.

EAST PROVIDENCE.—The lode in Mount adit is larger, and opening in size very good. We have cleared up an old shaft this week, in which there was said to be a good lode for tin; we found a promising lode, with a shoot of tin about 5 feet high and 10 inches wide, and it seems to have some tin in it. The appearance of a carbonaceous. It would pay very well if we could work it, but the water is so very quick in it that we had very great difficulty in reaching it, and after having closely examined it, and broken a fair sample, were obliged to abandon it, until drained by an engine or adit.

AT WHEAL HENRY (Helvellyn, Cumberland), they have led in the fore-breach of the long level, as well as in the 40 fm. level above. A level is being driven 20 fms. below, to cut the ore gone down for above 40 fms. long in the present level. A dump has been sunk here, and solid silver ore raised. The prospects are good.

CARNEVAS MINE.—I send you herewith the report from Carnevas, received this post, which I cannot but regard as highly satisfactory; I may, therefore, as manager of the mine, ask that you refrain in future from inserting such remarks on the mine as have appeared in your several past Journals.—R. TARDENICK.

CARNEVAS, Sept. 8.—Since my last visit to these mines, the men have cut into a large open west of the north and south lode 7 feet, which has a strong and powerful appearance, being highly mineralised; they have also driven on that part of the lode nearest the capel 8 feet, which has greatly improved, being now 2 feet wide, composed of rich-looking spar, with large fragments of molybdenum and lead. In driving in this part a few fathoms, another part of the lode split off, about 5 fms. behind the end, and will be intersected, when I look forward for still greater improvements. I also like the appearance of the strata about this point, being much the same as surround the copper lode, and it is my opinion that we are not far from the junction of these lodes, and which shall be proved as soon as possible.—G. RYLANDS.

FROM ANGRACK CONSOLES MINES, a sample of the lead, assayed by Mr. Claret, produced 77 per cent. for lead, and 35 ozs. 15 dwts. silver per ton of ore.

MINING IN DEVON.—On my way from Buckfastleigh to Poundsgate and crossing over New Bridge, my attention was attracted to a sound up, by the Dart stream, towards Hannaford, where a few years since, with Capt. W. Williams, rejoicing over the christening of a new mine, called Devon Great Elizabeth. From the indications presented near to surface, and the splendid specimens of copper ore from the lode, coupled with the character of the strata and other circumstances, obvious to practical miners, lead me to the conviction that an extensive deposit of rich copper ore will be laid open at a shallow depth.

RIVER TAMAR COPPER MINING COMPANY.—We are very glad to hear that a very large number of shares have been already taken up, and the deposit of 5s. per share paid. The company was formerly called the South Devon Great Consols, and, although they were compelled to wind-up, the directors and their immediate friends had such great confidence in ultimate success that the working of the property has never been stopped, and is now progressing more vigorously than ever. The machinery is in the most perfect order, and the necessary buildings of a substantial description, properly surrounded by dividend-paying mines—the Devon Great Consols joining on its eastern boundary, at the south-east it nearly joins the Bedford United, its southern boundary the Old Gunnis lake, and the western part the Hington Down Mine. The River Tamar Mine is situated in strata of granite and killas, the former being exactly similar to the granite which yielded such great results at Gunnis Lake, and the latter being in every respect like that which has yielded such unprecedented returns at the Great Devon. I would appear that, as a progressive mine, few possess greater elements of success, and the reports from time to time prove that it has been worked in a legitimate and miner-like manner.

WHEAL JULIAN.—This promising tin mine is situated in the parishes of Plympton St. Mary and Shaugh, in the killas formation, on the border or southern declivity of that part of Dartmoor known as Shaugh Down. It is close by and parallel to Wheal Sidney, which ought to be paying good profits, but is not for want of a little more capital, proper appliances will be made to develop the mine to a depth of 12 fms. deep, in which little has been done by the former party for want of pumping power. The property has lately been purchased by Mr. H. Wills, Plymouth, and Capt. Williams, Tavvy Consols, who have started in good earnest, and seem determined to prove the property; and are erecting a steam-engine for pumping, stamping, &c. The district is well worthy a trial, and if Capt. Williams and his friend succeed, it will do much for this comparatively untried, though promising neighbourhood.

TYWANNHALE.—The smiths and carpenters' shops, count-house, and other necessary buildings, are being repaired, and will be fit for use shortly. Tenders have been invited for the carriage of the 70-in. cylinder engine and boilers, computed to weigh about 100 tons, which it is expected will be delivered on the mine in the course of the ensuing week. As soon as delivered the engine will be put in the house, and the working of the water immediately commenced. The management of the mine has been entrusted to Capt. Dale, of St. Stephen's, and under his auspices it is anticipated more capital, proper appliances will be made to develop the mine to a depth of doing. When copper was at the standard of 90, the last two months of working it returned about 1400 tons of ore; at the present standard this would have a large profit to the shareholders, and the future produce is expected to be equally as great.

AT NORTH ROSKEAR, the 164 fm. level west continues to improve, being now worth 165l. per fm. Other parts of the mine are looking well.

CATHERINE AND JANE CONSOLES.—The lead lode continues to turn out well. The purser, Mr. A. B. Callender, writes to say that another parcel, of 10 tons, will be ready on the 21st inst., and that more will speedily follow. This fully bears out the captain's reports on this lode, and shows what the mine can produce. The samplings of lead may be expected to increase monthly, as more men are now employed on the lode.

NEW CROW HILL MINE has just sold 65 tons of jack, and they have a large quantity broken and ready for dressing. The lode in the adit is producing 1 ton of lead per fm., and the 15 fathoms level east is producing some fine rocks of lead, and looking better than it has done before.

LADY BERTHA MINE has been inspected by Capt. Thomas Gregory, of Drake Walls, who reports that they have only a few feet to sink to make a 30 fathom level. The stratum at the bottom of the shaft is of a very favorable character, with small strings of copper dropping into the lode, which looks very promising for the 30. A good shoot of ore is gone down east and west of Moyle's shaft. He had no doubt, if they came in contact with more cross-courses, the lode would be more productive. The engine-shaft being in first-rate condition gives great hopes of success. Since the above report, we are informed that the lode has been intersected, and is very rich.

ROYAL SLATE QUARRIES.—Under the management of Mr. D. Edwards, three galleries have been driven, each producing excellent slates of all descriptions. There is an abundance of both green and blue slates of the best qualities to be had with ease, and the total production is from 700 to 900 tons per month, and from 12,000 to 15,000l. worth on the banks at this moment. A railway is much required, without which there is no likelihood of the stock on the banks materially decreasing.

SOCIETA DI MONTENAPOLI.—This company has been formed for working a copper mine on an estate reaching to the sea shore, seven miles south of Leghorn. At a shallow depth ground has been met with, yielding 30 per cent. of pure copper, and by experimental openings a fine vein of ore has been traced to a depth of 20 fms., showing that, in all probability, a very extensive and rich deposit of copper ore exists on the property. The lease of the mining rights is for 30 years, at a royalty of 20 per cent. on the net profits of the workings. The company has been constituted as a society anonymous by a special decree of the Tuscan Government, which limits the liability of the shareholders to the amount paid upon their shares. The proposed capital is 30,000l., in 2000 shares of 10l. each, out of which 250 free shares are to be given to the proprietors for the buildings and the work already done.

MINING IN SOUTH AUSTRALIA.

SCOTT'S CREEK SMELTING WORKS are so far completed that smelting operations have commenced, and been attended with the most satisfactory results, a regular of from 50 to 60 per cent. having been run off in the first charges, and this from low percentage ores. The works reflect great credit upon the manager, Mr. R. Rodda, for the efficient manner in which the whole arrangements have been conducted. The company have now upwards of 150 tons on the floors, and the immense piles at the Kanmantoo Mines ready for cartage to the smelting works will keep the furnaces steadily going. A careful calculation of the costs of smelting has been made, and it has been ascertained that ores of so low a percentage as 3 can now be profitably converted into regulus, and, while the price of copper continues so high as it now is, must be equally remunerative to the miner and the smelter.

THE WHEAL MARY AND KANMANTOO MINES were never looking better; the lodes are changing their character in depth; the carbonates turning to grey and yellow sulphurets; of the former there are some large piles of a high percentage, and of the latter a very large course has been opened at about 15 fathoms from the surface, yielding at least 10 tons of ore to the fathom. About 40 men are now at work, and it is expected that shortly a greater number will find employment there.

THE BREMER MINN ENGINE-HOUSE is now finished, and the whole of the internal machinery erected, under the superintendence of the Messrs. Haller. This is probably one of the most complete engines ever brought into the colony, and it is calculated to be of sufficient power to carry the mine down a considerable depth.

THE BREMER SMELTING WORKS are at present idle from the scarcity of fuel, the farmers being too busy putting in their crops to attend to the carting of firewood. They will shortly resume work, and they have upwards of 300 tons of ore ready for the furnaces.

WHEAL FRIENDSHIP MINE, which, a few years ago, promised to be one of the most productive in the neighbourhood, and was suspended in consequence of the gold mania, has again been put into active work by Mr. C. E. Bird, who has erected an engine of 30-horse power upon it, which has been at work nearly two months. The engine is one of the most complete of the kind, combining great strength with simplicity, and is now keeping the water in force at the 20 fathom level with a pressure of only 5 lbs. to the inch, and has, with but little additional power, drawn 300 kibbles of stuff to the surface in about three hours. They have commenced driving on the course of the lode north and south, and about 35 fathoms have been driven on a lode of from 2 to 3 feet wide, composed of rich black and grey sulphurets, whilst the backs up to the 10 fathom level will be immediately set to tributaries to stopes. The ground in this mine is remarkably easy. The 30 fathom level has been set to drive at 3l. per fathom, the men hauling and landing their own stuff and the cleaning up the 10, in which some very strong veins of carbonaceous have been raised at 30l. The floors begin to produce a pleasing sight, from the quantity of ore now in course of dressing, and there can be no doubt that this mine is one of the richest in the neighbourhood. Twenty-two men are now employed, and when the shaft is carried down to the 80, there will be ground enough opened to give employment to at least 100 men.

BURRA BURRA SMELTING WORKS, under the superintendence of Mr. A. Motley, are now in full operation. During the week ending May 23, 135 tons 3 qrs. 13 lbs. was made into cake copper, being at least 30 tons more than has hitherto been made in the colony in the same time. Mr. John David, late of the Yatala Smelting Works, and who possesses a well-earned reputation both at home and in the colony, is at the head of the refinery department.—Adelaide, June 13.

LITERARY NOTICE.

Treatment of an Inventor by the Admiralty: an Instructive Narrative for Englishmen, particularly for those who are Shareholders in Steam-ships.—By T. SYMES PRIDEAUX.

Dr. Johnson used to tell, as a good illustration of pompous egotism, the circumstance of his meeting a person, who invariably announced himself to strangers with, "I am the great T. Symes Prideaux, the inventor of the patent flood-gate smoothing iron." Much in the same spirit does Mr. Prideaux come forward. He proclaims himself as the inventor of the patent flood-gate furnace door, a door which saves fuel, and compared to which all other smoke-preventing and fuel-saving patent inventions are as nothing—at least, in his estimation. He begins, "I practically investigated the mode of action of most of the furnaces used in the arts, as well as those of steam-boilers. I arrived at a clear perception of the most important fact—that, to obtain the best results from the combustion of coal in a furnace, it is indispensable that the air to be admitted to the furnace, and the gradually diminishing supply of air immediately after cooling." Here Mr. Prideaux clearly lays claim to be the discoverer of a great "fact," a fact which he applies as a motto on his title page:—"It is, or it is not, a fact." This fact is put before us in roman and italic type, and Mr. Prideaux claims for himself a clear and unquestionable right to its discovery. Having "arrived at a clear perception of this important fact," he proceeds to favour us with his chemical views. Thus, "coal is a compound combustible, consisting of gas and coke." He next speaks of "solid carbon (coke) alone remaining in the grate bars." What Mr. Prideaux quotes as an observation made to him by Mr. Lloyd, the chemist, we would quote with an opposite meaning—"You appear to be well versed in chemistry." Mr. Prideaux seems to take it for granted that everybody knows his invention, and that no one disputes its originality and value; he, therefore, never once alludes to any peculiarity in its mechanical construction. It consists of a door, with a lever acting on one or more valves, which gradually close the slots they are placed over, by the action of a small pump apparatus; and the air so admitted passes into the furnace through an arrangement of flat metal bars, placed like a Venetian blind. This he patented in December, 1850, and it is in reference to this patent, for which he has an account against the Admiralty of 480 guineas, but of which they only offer to pay 370l., that he has ushered from the press this strangely querulous pamphlet. The score point appears to be, that even this amount the Admiralty now refuse to pay, without receiving a receipt in full of all demands. And what wonder, after Mr. Prideaux has treated them with such letters as he now publishes? Now, as to Mr. Prideaux's merits on the ground of invention, we find that in July, 1842, Mr. Prichard patented a self-acting furnace door, and in 1839 Mr. C. Wye Williams patented his Argand Furnace; thus, in the year 1839, Mr. Williams conceived the idea of dividing the air to be admitted to furnaces, and in the year 1842 Mr. Prichard conceived the idea of attaching a self-regulating apparatus to furnace doors, to equalise and cut off the admission of air. But more, from 1844 to the present day, we have ascertained that furnaces with perforated air apparatus in front at the door, and with a valve regulated by simple clock-work arrangements, have been extensively set up by Mr. Thomas Barnett, of Leeds, many years in the employ of the celebrated Mr. Richard Witly. What, then, becomes of the novelty of Mr. Prideaux's invention, if it is any invention at all? In our opinion it would have sufficed to have registered it as a mere design. There is nothing new in the principle, or its application; and the only claim which therefore he can make to the very lowest standard in this class of patents. Knowing this, what comes of all this puffery of his labours? Who can apologise for his language as directed against such gentlemen as Mr. Lloyd, Mr. Murray, and others? How egregious is his folly in naming in the same breath, in support of his own case, the "four patentees"—Arkwright, Watt, Cartwright, and Cort. Then, to wind-up, as if his case were the most grievous on record, delivering himself thus,—"Oh! if word of mine have power to reach the national heart—I may learn in time, and as upon the knowledge, that no country is so great as to be able to afford to practice to account—none so powerful as not to duly reverence and cherish her safety, by committing her interests to the charge of the intellectually incapable and the Morally unfit." Mr. Prideaux may write and think what he pleases about "the villainy of Admiralty officials," and about their treatment of him in their money transactions, but of this we are well assured, that he is an eminent example how unjust one inventor and patentee can be to all others in the same walk of science.

AUDIT DEFINED AND EXPLAINED.—Under this title, a very ably written pamphlet has been published by Messrs. Waterlow and Sons, and there can be no doubt that, were the suggestions therein contained carried out, the operations of joint-stock companies, established for commercial purposes, would prove as remunerative to the shareholders as similar private trading concerns are to their proprietors. Were no more pains taken to ascertain the true state of the finances by independent auditors, it is observed by the majority of public companies, the state of the commercial community could not be maintained in its present position for a single year; and, on the other hand, were effectual means taken to thoroughly investigate every financial statement referring to joint-stock partnerships, they would speedily take their place on a par with private enterprise. The author of the pamphlet defines audit by stating that it is the duty of auditors to see "that all moneys which should be received are received, or the obligation to pay admitted, and in such case that proper security for payment exists; that all moneys which are received are properly carried to account, both as regards persons and things; that all moneys which have been paid, should have been paid, and are legally acknowledged; that such payments are properly carried to account; and that the results exhibited in the balance-sheet conform to the facts thus established." He contends that this is novel to the generality of auditors, it being usually deemed sufficient to see the vouchers for payments, and rarely considered necessary to bring receipts under review. It is the managerial function to prescribe and regulate the means to insure the fullest return for services rendered, and permit the greatest development of the capabilities of the concern; but, he considers, it is the function of an auditor to determine the value, sufficiency, and accuracy of claims in dispute. The importance that all moneys received should be properly entered no one will question; and to prove that moneys which have been paid should have been paid is also very necessary, and if the auditor really ascertains this he will do an important duty. There is no ground for denying that the auditor's investigations might be held to include everything which has been alluded to; but to hope that, in the short time usually allowed for auditing, and with the merely nominal amount paid them for their trouble, is simply absurd. To carry out the suggestions contained would not only require the assistance of professional auditors—with ability equal to Mr. Coleman—for some time, but it would be necessary to consult professional men, connected with the business in which the company was concerned, to tax the charges—which would certainly be needless in a general point of view. Taking a review of the whole book, we think that in theory the scheme is excellent, but fear that in operation it would be found impracticable.

THE MINER'S READY RECKONER.—The acknowledged want of tables for more readily computing the value of mine produce sold at the public ticketings has induced Messrs. J. F. Penrose and W. N. Grylls, of Redruth, to propose the compilation, provided a sufficient number of subscribers be obtained, of an elaborate set of tables, which shall comprise—the value of any quantity of ore from ¼ cwt. to 100 tons, at any price from 6d. to 30s. per ton; the quantity of copper contained in any parcel of ore having a produce varying from 1 to 30 per cent.; and the amount contained in any parcel of ore, the proportion in a pound being given. To be connected with the copper trade or copper mines these tables will be invaluable, and it is, therefore, to be hoped that the authors will be well supported. The price of the tables, bound in cloth, will be to subscribers 42s. per set, which cannot be considered extravagantly high when the immense amount of labour which is required to produce them is taken into consideration.

CORNISH DIALOGUES.—That celebrated wit and caricaturist, Mr. J. S. Tregellas (justly entitled the Cornish Mathews), has issued a small work, partly in rhyme, and partly in prose. The former abounds in very Cornish witticisms, as well as words, of which a glossary is attached at the foot of each page, for easy reference. The prose story gives a faithful representation of a Cornish miner, displaying a natural inquisitiveness and politeness. The work also contains a verbatim report of one of these worthies. The subject and dialect prelude the graces of poetry, being extensively used, though considerable ability is displayed. To those anxious to enjoy a Cornishman's credulity or language, we commend the work, as another specimen of

MEMS. OF MINES AND MINERS.—No. XVI.

Captain ROBERT BILLING (Ashburton) should, properly, be termed a mining pioneer, being one of the few who, stepping out of the beaten path, holds, and puts in practice, the argument that Nature produces the same minerals in the same strata, wherever situated, and that a search for them is sure to be crowned with success; an argument he as well as others have proved to be correct. Captain Billing was born and reared in the cradle of mining, where he worked at Poldice, Great Wheal Busy, and adjacent mines. Educated in such a school, no wonder he became an experienced and successful tributer, dresser, and judge of mineral ground, so beneficial to him in after life. Capt. Billing was one of the miners selected for intelligence and good conduct to proceed to South America, for extracting the precious metals; after serving in this employ, on his return he took an engagement at some small mines. He at length obtained the captaincy of the South Plain Wood Mine, near his present residence. The appearance of this mine was such as to induce the most sanguine hopes; but the company, like many others, would be neither led nor driven by the captain's advice, but would take their own; consequently the mine was abandoned, without giving it anything like a fair trial. Capt. Billing, judging from his long experience, and feeling perfectly persuaded such kills, so situated with regard to granite, trap, lime, and other rocks, traversed as they were by capel and quartz veins, must be metalliferous, and the storehouse of great deposits somewhere, cast about him, and, after a long and diligent search, discovered the vein now worked as the Queen of Dart Mine (deriving its name from being first seen in the river so called). This was followed by the discovery of the King lode, a continuation of the Queen lode, being slightly heaved by a cross-course. The Queen of Dart has returned several hundred tons of copper ore from a shallow level, the 20 being better than the 10, and the lode just out in the bottom of the 30 promises well, so that there are all the elements of a lasting mine; the King having the same appearances, promises to add equally to Capt. Billing's fame and fortune. He then prosecuted his discoveries at Hemerdon Wood, on a sett called the Knight of Dart, and at the same time worked a sett on the Tamar at his sole expense, the whole of these being in virgin ground. Who will not say Capt. Billing is a pioneer and devotee? Arrived, as he now is, into the decline of life, he must have something more than mere personal aggrandisement in view; having no family, we opine Capt. Billing has as much the public well of mining and a laudable desire of distinction in view as the more sordid desire to obtain riches. Capt. Billing is one of those shrewd, witty, studious men, who need but little schooling to develop their talents, of which no ordinary share has fallen to his lot; being possessed of a fine imagination and liberality of sentiment, always displayed—except in matters of faith in religion, on which point, like many others who are equally liberal on other subjects, he insists on his infallibility. He has long retired from taking the care and charge of mines as agent, devoting the whole of his time, with an energy amounting to devotion, to his more suitable vocation as pioneer, in which we wish him the success he deserves, and of which he has received such ample earnest.

Mr. SAMUEL HIGGS (Penzance), purser of several mines in his neighbourhood, is another striking instance of what perseverance in mining can effect. Mr. Higgs, on his first introduction at Penzance, commenced business as a grocer and merchant on a large scale. After a time he engaged in mining. His business-like habits, kind demeanour, and upright dealings, soon inspired that confidence which induced his selection as purser. Mr. Higgs had, be it remembered, considerable experience in mining as an adventurer, and knew all its ramifications, ere he took the responsibility. Nor must it be supposed Mr. Higgs was at once or uniformly successful. No, no! Mr. Higgs has had his disappointments as well as others—the easy golden path to wealth by mining is trodden but by few. Mr. Higgs owes his success to perseverance as well as to Providence, of which splendid mine he is not only purser, but a large proprietor. Mr. Higgs, also, is a fortunate adventurer in several other rich mines, from which he derives a handsome income. Mr. Higgs is, and always has been, much and deservedly respected. He has had the honour of filling the civic chair of Penzance, in which capacity his urbanity of manner was only surpassed by the ability with which it was graced. In any measures suggested or promoted for the improvement of the town, the people, or the locality, Mr. Higgs has always been found a liberal subscriber, and a zealous advocate; in private life, they who have the honour of his acquaintance, enjoy the society of a sincere friend and upright man.

DRESSING AND BUDDLING OF ORES.

Mr. C. H. G. Thost, of Tyndrum, N.B., has made several improvements in these important operations, the particulars of which he has forwarded to us, with most elaborate details. By his method, a wooden trough is first constructed, of about 10 feet in length, by joining two boards of from 12 to 14 in. in width, and about 1 in. thick; this must be at an angle of from 100° to 110°: the inner side of the trough will have to be lined with sheeting, from 6 to 7 inches high; this should be placed on a support, and in such a way that it leaves a distance of at least 1 foot from the plane of the picking table; this must be calculated according to the stuff to be dressed and the water available for the purpose; the trough receives an inclination of from 8° to 12°; the water conducting pipe is fixed at 2 feet distance from the upper end of the trough. When the stuff is thrown into the trough, and the water is poured upon it, a hoe is employed to work it, and push the ore upwards; having reached there it falls upon the picking table, which at that spot may have a grate, for the purpose of letting the water and the smaller pieces of mineral through. This system of cleansing is much more perfect than that on a horizontal table. The greater the power of water to be obtained, so much more inclination may be afforded to the table, although much less is here required than by the other method.

The underground stuff, too small for the picking, should be concentrated into as small a bulk as possible. The large sort can be separated by jiggling, and the smaller by buddling; it is requisite to divide or separate the whole quantity of stuff being unfit for picking into as many classes as the circumstances require. Underneath the trough there is a gathering box, in which the stuff, sliding down upon the bars of the grate, is received, and the smaller are forced by the water through the apertures; this is carried by self action into a trough of lesser dimensions, and placed at an angle of from 5° to 10°; the lower end discharges this on a second grate, in a similar manner as occurs in the first process. In this last, instead of iron bars being employed, sieves of a large hole are used; the back of this grate discharges a quantity of water and stuff into a sluice pit, where, without manual labour, a further separation takes place, and in most cases this is performed so effectually that the tailings and the middle of the buddle can be at once thrown away. It does not require that the arrangements on the dressing-floor should be in a direct line in order to carry out these operations successfully. These processes must be varied according to circumstances, and the judgment of the ore-dresser; and this remark likewise applies to the number of grates that may be used, and their several modifications. The force obtained by the water rushing down the angle trough strikes against the apertures and the bars of the grate, so that a certain size by this action is forced through them, and the larger size must slide down on the inclined bars of the grate; these but seldom require cleansing, as the constant friction obviates the necessity of this, and the water can, by a simple arrangement, be successively used.

In the "trunking" the stuff, whether stamped or crushed, it must by a flow of water be gathered in a spout, and as often as the operation of striking against an inclined grate is required for the sake of obtaining several classes of ore, so often the water with the stuff suspended in it requires to be concentrated in a spout. Mr. Thost then alludes to the passing of water through the rollers at the time the operation of crushing is being proceeded with. In the case of ore stuff having been stamped, the water and the material having passed through the sieve plates at the sides of the stamp heads, must be gathered in an angle trough, the end of which discharges the water and slime on a grate of the like construction. The arrangements for "buddling" appear to be of a very simple nature, as by the previous operations any of the obstructions which might impede this last process are cleared away.

The whole of the apparatus is in operation at the Tyndrum Mines, in Perthshire, belonging to the Marquis of Breadalbane, which are under the superintendence of Mr. Thost, and can be seen by any one visiting the district. The method, that gentleman observes, to a certain extent is novel; the work it performs is considerably greater than that by ordinary machines; the ores returned are clean, and this mode has been proved to be not only very effective, but at the same time it can be recommended for

its economy, the outlay of a few pounds being all that is necessary for the construction of the apparatus.

The inventor is of opinion that it would be of great utility at the gold diggings, for the washing of the ore, the arrangement being so simple. No machinery is required; it can be erected at any place wherever a small stream of water is at command, while the gold digger may rest assured that not a particle of gold will escape him. A single man can carry on all the requisite operations, one after the other. It is not supposed to be applicable to gold mines, but simply to diggings. Another advantage is, that the apparatus may be attached to the patent frame, the round Cornish buddle, and the shaking tables. A regular and homogenous supply of water is obtained for buddling purposes, and the various operations are based upon purely self-acting and self-regulating principles. The system of dressing by Mr. Thost has been some time in operation, and according to his showing the results arrived at have been favourable. Under all circumstances, the invention has this great merit, that it is practical, and therefore unlike many of those inflated schemes for dressing and reducing areas which as yet have merely proved experimental in the majority of cases, though their projectors have amused the public with a series of chimerical trials and vague assertions for a considerable period.

THE COAL FIELDS OF ENGLAND.

At the BRISTOL MINING SCHOOL, on Monday, Mr. Fryar delivered a lecture on the "Geography, Statistical and Physical, of the principal Coal Fields." The lecturer observed that an acquaintance with the geographical position, extent, and character of the principal coal fields, not only of our own country but also those of others, was of no little importance to the student of mining science. It opened to his mind the vast extent of the very valuable mineral deposits with the working of which he expected to be occupied during the period of his life; and might assist in enabling him to determine in what particular locality he could enter into such occupation with greatest advantage to himself and interest to his connections. It gave him enlarged views of coal as an article of commerce, and afforded him sufficient reason and argument for a nation's superiority in commercial and manufacturing greatness, and taught him the whereabouts of the elements of success in enterprise, and the facilities for their efficient development.

Great Britain might be styled the "island of coal fields." In no other country had coal been so extensively developed, nor, indeed, mineral resources in general; no other country offered such facilities for the extraction and internal transport of minerals, and their exportation to other parts of the world; and in no other country had the art of mining made such progress and proficiency. The coal fields of England were, from geographical position, arranged by Conybeare as "the great northern district," including all the coal fields north of the Trent. "The central district," including Leicester, Warwick, Stafford, and Shropshire. "The western district," including North Wales, South Wales, Gloucester, and Somersetshire. The Northumberland and Durham coal field was the one highest in rank of historical interest, as well as of extensive and skillful development. It is bounded on the north by the River Coquet, and on the south by the River Tees; its greatest length about 50 miles, and breadth 25; comprising an area of about 840 square miles. It rests on the millstone grit and shale, and is overlaid by magnesian limestone. The inequality of the surface did not affect the dip or inclination of the strata constituting the coal measures; so that when they were interrupted or cut off by the intervention of a valley they would be found on the sides of the opposite hills at the same levels, as if the beds had once been continuous. The present irregularities of hill and dale had been occasioned by the partial destruction or dispersion of the uppermost strata constituting the coal formation. The aggregate thickness of workable seams was about 25 ft. At the Gosforth Colliery, near Newcastle, the strata had been penetrated to the distance of 1128 feet, where 43 seams of coal had been intersected. At Monkwearmouth, in the county of Durham, a shaft had been sunk to the depth of 1674 feet, or 279 fathoms. The first valuable seam of coal was found at this depth, after a labour of upwards of 10 years. Mr. Winch enumerated three principal varieties of Newcastle coal—1. The common or slate coal.—2. Cannel coal; also called parrot coal; with but little bitumen or sulphur.—3. Coarse coal; also called splint coal; fracture cubical. The total produce of the district was 15½ million tons annually, and the number of collieries 273. According to the recent calculations, about 110 square miles of coal had been excavated, leaving 730 to be worked, from which it appears that the coal will not be exhausted till after a period of about 1720 years.

The Yorkshire, Nottingham, and Derbyshire coal field was next noticed; area, 1010 square miles; number of collieries, 524; annual produce, 10,800,000 tons.

The Whitehaven coal field, the Lancashire and Cheshire, North Staffordshire, Shropshire, Dudley and Wolverhampton, Warwickshire, Ashby-de-la-Zouch, Newark or North Gloucester, the Bristol, the area of which was 50 square miles. It had been arranged into five principal coal tracts, comprised in a district of about 25 miles in length and 11 in breadth. The coal tracts were—the northern, 30 miles; central, seven miles; southern, six miles; eastern, two; and western, five. The seams were generally very thin, and much inclined. The coal measures rested on the millstone grit, and were overlaid by the new red sandstone. This coal field was nearly enclosed by an elevated ridge of mountain limestone, forming a kind of boat-shaped depression, in which the coal deposit had been formed. The lecturer proceeded to notice other coal fields of importance, including the South Wales, American, French, and Belgian, giving their extent, geological boundaries, geographical position, and qualities of coal.

EDUCATION IN THE MINING DISTRICTS.

The Annual Report upon the state of the Population in the Mining Districts, by Mr. S. H. TREMENEER, the Government Commissioner, has just been issued. After referring to the alterations which have been made in the rules of the Prize Associations of Monmouthshire, East and West Glamorgan, and Carmarthenshire, and the formation of similar associations in Yorkshire, Derbyshire, Nottinghamshire, and Leicester, he states that he addressed a circular to a considerable number of the employers of mining labour in South Lancashire and Cheshire—a district now containing, according to a list furnished him by the Chairman of the Coal Association for the two counties, upwards of 300 collieries. He brought before the meeting of the Coal Association, at Manchester, the question of the formation of one or two of these associations for that district, when the consideration of the subject was adjourned, and will, no doubt, be discussed at the next meeting of that body. South Lancashire and Cheshire is the only remaining mining district of much importance without its prize association. When the association for Derby, Nottingham, and Leicester was completed, an attempt was made to induce the employers of miners in Warwick to join it, but the answers were, for various reasons, unfavourable, although there appears a disposition to form an association amongst themselves, or to join that already formed by the Rev. Nash Stephenson, for the Archdeaconry of Coventry.

In the neighbourhood of Chesterfield, and between that town and Sheffield, a new mineral district is being opened, and a large population is about to be collected around the works that are springing up there. From information received, he believes that there is every disposition among those in responsible positions to avoid as far as possible the evils that were formerly allowed by unfortunate oversight to so often accumulate in new colliery districts, from the want of due attention to what constitutes a healthy state of society, in a physical, no less than in a moral and religious point of view. It is too early yet to expect the organisation of a prize association, but the subject has been brought to the notice of some of the principal employers, and favourably received.

Mr. Tremeneer refers to some extraordinary remarks made by Mr. Norris, the Government Inspector of Schools for Staffordshire, and very clearly shows that Mr. Norris's opinions are wrong. He (Mr. Norris) proposes that money prizes should not be awarded to candidates under 12 years of age, and who shall not have regularly attended school for three years, and that no one shall be a candidate for the money prize who has not first gained the bible prize—the qualification for competing for which is two years' regular attendance at school subsequently to the age of nine. In reply to this Mr. Tremeneer justly remarks, that all the evidence collected by the Inspectors and others tends to show that a very small proportion of the children of the lower grades of the labouring classes are found at school at all; the age of 12, still less who have attended school regularly each of the preceding three years. He has drawn attention in several reports to the propriety of requiring all boys between the ages of 10 and 14, who work below ground, to attend some day or evening school for a certain portion of time, according to the principle of the Printworks Act, but with modifications that might secure better general results. He believes that no practical difficulties of any moment would prevent the successful application of a measure, founded on the principle of the Printworks Act, to the mining districts, and he had no hesitation in affirming that a large number of the most intelligent persons in those districts desire it.

With reference to the allegation that at the Risco Collieries the workmen had been thoroughly demoralised by the truck system, he was satisfied, after a careful examination of the books of the company, which were freely submitted to him, that under the present management there were no grounds for such an assertion. He regretted that they had not yet been able to convict the persons employing females below ground in the neighbourhood of Clydach, Nantyglo, and Blaenau, although there is reason to believe that the practice is on the increase, in consequence of the facilities afforded for entering the collieries by open galleries in the side of the hills; the owners, it appears, are desirous of preventing it, but there is not sufficient vigilance on the part of the underagents, although they must be cognisant of these violations

of the law. One prosecution against Henry Thomas, the overman at Ashtree Colliery, Tredegar Works, for employing boys under 10 years of age, had resulted in a fine of £4, and £12s. 6d. costs; but relative to the employment of a boy under age, at Messrs. Tredegar's colliery, they could not obtain sufficient evidence. It had reason to believe that the law in this respect is in many instances violated in certain collieries near Oldham, and was in communication with persons in the neighbourhood on the subject. It appears from the whole report that the position of the population in the mining districts is improving, and that the Act bearing upon the subject is working in every way satisfactorily.

MANUFACTURE OF IRON.

[FROM A CORRESPONDENT.]

Amongst the many inventors who, according to the opinion of an eminent practical man, have been amusing themselves by "playing at iron-making," scarcely any two of them have entertained a similar opinion with respect to the particular chemical compounds which give a superiority to one class of iron over another. One will try to produce a chemically pure metal, on the supposition that purity must be the desideratum; another thinks that if the sulphur and phosphorus could be removed, the iron would be of the best quality; while a third supposes that he has discovered the philosopher's stone, and proposes to introduce a small percentage of nitrogen, "as its existence in good quality iron has never received an adequate amount of attention, and therefore claims the use and production of cyanogen compounds, wherewith he will be enabled to imitate, in its chemical combination, the most sought-for descriptions of iron."

Notwithstanding the opinion of practical men that the excellence of iron is as much due to mechanical as to chemical causes, the iron chemists are disinclined to acknowledge that chemistry is unable to become a substitute for careful mechanical manipulation. Messrs. F. C. Calvert, F.C.S., and Richard Johnson, have just completed a series of interesting experiments on the chemical changes that pig-iron undergoes during its conversion into wrought-iron. The pig-iron experimented upon was No. 3 grey pig, which on analysis gave—iron, 94.05; carbon, 2.27; silicon, 2.72; phosphorus, 0.45; sulphur, 0.301; and traces of manganese and aluminium. Two cwt. of this was introduced into the puddling furnace, and 40 minutes after the first sample was taken from the centre of the molten mass with a large iron ladle, and poured on a stone flag to cool. On breaking the sample as it was taken out of the furnace, it had no longer the appearance of No. 3 grey pig, but a white, silvery metallic fracture, similar to that of refined metal. The rapid cooling of the sample was no doubt the cause of the change noticed, for it contained quite as much carbon as the pig-iron used; and further, the carbon was in a very similar condition, as in both cases a large quantity of black flakes of carbon floated in the acid liquors in which the iron was dissolved.

Upon analysis it was found that during the 40 minutes which the iron had been in the furnace, two opposite changes had taken place, for whilst the proportion of carbon had increased, the quantity of silicon had rapidly decreased, there being now 2.726 of carbon, and 0.915 of silicon. After the iron had been one hour in the furnace, a second sample was taken out, when this curious fact was still further apparent, there being then 2.908 of carbon, and 0.197 of silicon. It had the same white silvery appearance as the previous sample, but was slightly malleable under the hammer, instead of being brittle. The scoria also was on the upper surface of the mass when cold, and not mixed with the metallic iron. Five minutes afterwards the mass in the furnace having become very fluid, and beginning to enter into the state called "the boil," a small quantity was ladled out. When cold it was quite different from that of the two previous ones, being composed of small globules adhering to each other, and mixed with the scoria; the mass, therefore, was not compact like the former ones, but was light and spongy; its external appearance was black, and the globules, when broken, presented a bright metallic lustre, and were very brittle under the hammer. They had for some time considerable difficulty in separating the scoria from the globules of iron; but found that by pulverising the whole for a long time, the scoria was reduced to impalpable powder, and by sieving they could separate it from the iron, which was much less friable. This iron, thus cleansed from its scoria, gave of carbon 2.444, and of silicon 0.194.

As soon as the last sample had been taken, the damper of the furnace, which had been closed after the first sample was taken, was slightly raised, so as to admit a gentle current of air, which did away with the smoke that had been issuing from the puddler's door. This was done, no doubt, to facilitate the oxidation of the carbon of the iron, and to increase this action, the puddler quickly agitated the mass. Under this treatment the mass swelled rapidly to four or five times its original bulk, and in 15 minutes (1 hour 20 min. from the commencement of the experiment) the fourth sample was taken. Whilst cooling small blue flames of oxide of carbon were seen in various parts of it, no doubt arising from the combustion of carbon by the oxygen of the atmosphere. This sample was so light, and formed of such minute granules, as to be exactly like an ash's nest. The particles had no adhesion to each other, for by the mere handling of the mass it fell to pieces. The granules had a black exterior appearance, were very brittle under the hammer, and when broken presented a bright, silvery, metallic fracture. The analysis gave—carbon, 3.305; silicon, 0.182.

The fifth sample, taken out 15 minutes after the preceding, was an important one, as it was the first in which the iron was malleable and flattened under the hammer. It was ladled out just as the boil was completed, and the swollen mass had begun to subside. The damper was drawn up, and a rapid draught thus caused. The puddler changed his tool, using the puddle instead of the rubble. It was less granulated than the fourth sample, and still in separate globules, black externally, but bright and metallic when flattened. The carbon had greatly decreased, whilst the silicon remained almost stationary, the analysis being—carbon, 1.647; silicon, 0.183. As the mass rapidly transformed itself into two distinct products—scoria and malleable iron—the sixth sample was taken, five minutes after the fifth, but the appearance was similar, except that the scoria was not so intimately mixed with the globules of iron, and that these were larger, and slightly welded together when hammered. The next sample, although taken out but five minutes after the sixth, had the granules rather larger, and nearly separated from the scoria, which formed a layer at the top and bottom of the mass. The granules were more malleable. There was then of carbon, 0.693; and of silicon 0.163. In the eighth sample, taken five minutes after (1 hour 50 min. from the commencement of the experiment), being a few minutes before the balls were ready to be removed from the furnace, and placed under the hammer (it was part of one of the balls separated and placed to cool), no blue flame issued from the mass as it cooled, but it was still spongy and granulated. The granules, however, required a certain amount of force to separate them from each other, and were more malleable under the hammer. The analysis gave—carbon, 0.773; silicon, 0.168; so that it appears that in 15 minutes from the time when the boil was completed, the iron lost 50 per cent. of the carbon which it then contained.

The balls were hammered and rolled into bars, which were found to contain—carbon, 0.269; silicon, 0.130; sulphur, 0.134; phosphorus, 0.139; and when these were cut into billets, 4 ft. in length, heated to whiteness, and rolled into wire-iron, the proportions were—of carbon, 0.111; silicon, 0.088; sulphur, 0.094; and phosphorus, 0.117. An analysis of the scoria which remained in the furnace after the balls were taken out showed it to contain—silicon, 16.33; protoxide of iron, 66.29; sulphide of iron, 80; phosphorus sesquioxide, 3.80; protoxide of manganese, 1.04; lime, 0.70—100. Therefore the silicon, phosphorus, sulphur, and manganese, which existed in the pig-iron were found in the scoria, and probably the phosphorus and the silicon were removed from the iron by their forming fusible compounds with its oxides. The importance of such experiments as these cannot for a moment be questioned, and both theorists and practicals must benefit from the facts here recorded.

Mr. Crofts sends us the following review of the market:—

Since February last an important change "has come o'er the spirit" of our market. An epoch of great activity has given place to one of the longest and most severe depressions encountered of late years. The disturbing causes appear to have been a natural reaction from high to low prices, and the consequent losses suffered by nearly all engaged in the business of money; and, lastly, an Indian war. The depression, however, cannot yet be said to have passed away, but yet there is a symptom of returning confidence, which should rather awaken hope than encourage despondency. Unfortunately, so constituted is the speculative mind, that the greatest reluctance is always shown to adopt the maxim of the great statesman, "to sell in the dearest, and buy in the cheapest market," the reverse being the rule. In depressed periods, the prevailing idea is to wait for the lowest point, and the result is to miss it. It is only when the market begins unequivocally to assume a firmer tone that the capitalist takes courage to operate, and those who begin the earliest to avail of the upward movement afterwards regret their inactivity. If a prediction might be ventured upon, the "turn" of the market will not be long in becoming a confirmed fact, since, irrespective of improvements in a variety of mines, which naturally and legitimately advance the value of the shares, there is already a visible desire to invest in depressed stocks, which it might be easy to indicate were this other than a general view. Mines paying their costs, or making small monthly profits from sales of ore, are, in the writer's mind, the safest of investments at all times, because they have not yet attained that status of value which the ripeness of the regular dividend mine, for instance—always commands. Next to this class are well managed, London external mines, selling ores, and constantly improving their finances by lessening their calls in contradistinction to others which subsidise only by calls, and never approach a balance in hand. To enumerate this class would be invidious, but they exist in a large number. It is an oft-repeated fact, that "dividend mines" (by which are meant such as may continue so for years) are the most solid of mining investments, are free from all the ordinary risks of loss of capital, and give no anxiety. The speculative element scarcely belongs to them, and, oddly enough, for this reason they are not so much resorted to as investments of a permanent character as they deserve to be.

Mr. R. Tredinnick, of Gresham House, Old Broad-street, supplies us with the following information as regards the London Share Market:—

Old Tolson United, which stood firmly at 100, are now 50L to 55L; at the last meeting 85 new shares were issued at 50L, to raise additional capital, thence the fall in market value; the prospects are good, and the system now adopted will rapidly develop the property. South Gornal is opening out well, the works are carried out at an expense of from 60L to 70L per month, whilst the deep adit, above 70 fms. from surface, is now worked at 10L per ft., and likely to improve; this property is well watered, and has every analogy in its favour. Dolcoath, Stray Park, Cumbray Van, are all in demand. The 50 at Buller and Bassett United is about being started east and west, upon a magnificent lode, 4 ft. wide; a discovery here would send the price of shares very high. Trevaen stands to the east, whilst Buller, Bassett, North Bassett, West Bassett, and other important mines adjoin to the north; ample machinery is erected, capital subscribed, and the works have attained a depth at which important results may be achieved. At South Buller and West Penarth the cross-cut is being driven 8 fms. per month, at a depth of 45 to 45 fms. from surface; the cross-course is now traversing a beautiful channel of granite, with an even course running parallel with it; the lode, which is about 20 fms. in advance of this cross-cut, will probably, when intersected, prove productive; it stands whole throughout the company's grant, which adjoins the Bassett and Penarth Mines. In the West we have North Levant and Pendene, worthy attention at ruling prices. The tin mines of Uny Lelant are looking well; Margaret, Providence, and Kitty, are and must continue (with existing prices of tin) to pay large quarterly dividends; Lelant Consols ought to do better, and East Margaret should pay dividends; if reports current be true, Margery looks encouraging, whilst Great Wheal Vor and Belling Well are flat.

RAILWAYS IN SPAIN.—We learn from the Madrid journals that great efforts are being made to supply the Almansa Railway with rolling stock. Not long since 60 locomotives were contracted for, and more recently the making of 750 waggons was up for public competition in the Madrid and Almansa Railway. In this competition some of the principal makers in Europe took part, Mr. J. Ashbury (Ashbury and Co.), of Manchester, obtaining the contract.—*Liverpool Advertiser.*

BRITISH MINES.

CASTELL.—J. Lester, Sept. 5: The dry weather seems to have broken up; I am I hope that we shall have sufficient water to commence crushing some time next week.

judging from the present appearance of the lode, and the gradual improvement it is making, both in size and quality, my impression is by sinking 4 fms. deeper we shall have to eat plat, and extend on our levels both east and west, and although at such shallow depth, it is most likely we shall sample some excellent piles of ore from that

In North Downs, not so much doing, at 2 to 2½; Tamar Consols are flat, at 1 to 1½; Kitty (Lelant) in good demand, at 23 to 24. Par Consols, 20 to 21½; the mine has improved in several parts. East Alfred, 4 to 4½; most of the week, but notice of a discovery of a lode to the south of the large cross-course, 8 feet wide, having been received, a demand sprung up on Friday, and shares advanced, leaving off at 4½ to 4¾. Holmbush, 2 to 2½; Hington Down has considerably improved, and shares in great demand, at 4½ to 4¾. East Basset, 50 to 52; the 60 east, on the tin lode, is reported worth 40l. per fm.; the stoep in the back, 60l. per fm.; the 60 east, on copper lode, 12l. per fm. Kelly Bray, 1½ to 1¾; Wheal Zion, ½ to 1; Wheal Arthur, 3½ to 3¾; Calstock Consols have been in demand, and rose from 5 to 6, 6½; buyers; North Crofty shares have advanced from 3½ to 5½, leaving off at 5½ to 5¾.

The standard at the sale of copper ores at Redruth, on Thursday, the 10th inst., continued firm, at a little over the advance realised in the previous week. Ore copper made 105½ 8s. per ton, whilst at the corresponding sale of the previous month, August 13, the price of ore copper was 99½ 15s. per ton. On Aug. 13, an average produce of 6½ made 6½ 14s. 6d. per ton; on Sept. 10, an average produce of 6½ made 6½ 17s. per ton—an advance in one month of 7s. 4d. per ton of ore. This makes a very important difference to mines selling large quantities of ores. West Basset, for instance, sold 530 tons this week, which realised 1944. more than if the same ores had been sold a month ago; and two months ago, the standard being much lower, a two-monthly comparison of prices makes the advance appear still greater. The firmness of the metal market is also a very gratifying circumstance to mine shareholders, who may now be certain of receiving good prices for their ores, such as in the case of productive mines cannot fail to yield them large profits, if good and economical management be maintained.

Mining Exchange Official List of transactions during the week :—

MONDAY.—Alfred Consols, 14 to 15; East Basset, 49 to 51; Lady Bertha, 13a to 14a; Stridger Consols, 13½ to 2; St. Day United, 36a to 37a; Vale of Towry, 15a to 16a. 6d.; Wheel Edward, 8½ to 8¾.

TUESDAY.—Alfred Consols, 14½ to 15; East Alfred, 4 to 4½; East Basset, 49 to 51; East Basset, 49 to 51; East Alfred, 13a. 6d. to 14a. 6d.; North Croft, 5½ to 6; North Roskear, 135 to 140; Pendean, 1½ to 2½; Stray Park, 6 to 7; West Caradon, 120 to 125; Wheel Edward, 8 to 8½.

WEDNESDAY.—Alfred Consols, 14 to 14½; Calstock Consols, 5 to 5½; Drake Water, 2½ to 3½; East Alfred, 4 to 4½; East Basset, 50 to 52; East Russell, 2 to 2½; Holmestown, 1½ to 2½; Lady Bertha, 13a. 6d. to 14a. 6d.; North Croft, 5½ to 6; North Roskear, 135 to 140; Pendean, 1½ to 2½; Stridger Consols, 13½ to 2; Stray Park, 6 to 7; West Caradon, 120 to 125; West Basset, 20½ to 20¾; West Caradon, 120 to 125; Wheel Edward, 8 to 8½; Wheel Margaret, 66 to 67; Zion, 9½ to 10.

THURSDAY.—Alfred Consols, 14 to 14½; Calstock Consols, 5, 5½; Chancelor's, 10 to 10½; Dr. 6d. to 6d.; Drake Water, 2½ to 2½; East Alfred, 4 to 4½; East Basset, 49 to 51; East Basset, 49 to 51; East Alfred, 13a. 6d. to 14a. 6d.; North Croft, 5½ to 6; North Roskear, 135 to 140; Pendean, 1½ to 2½; Stray Park, 6 to 7; West Caradon, 120 to 125; West Basset, 20½ to 20¾; West Caradon, 120 to 125; Wheel Edward, 8 to 8½; Wheel Kitty (Leizant), 23 to 23½; Wheel Margaret, 66 to 67; Wheel Zion, 9½ to 10.

FRIDAY.—Alfred Consols, 13½ to 14; Calstock, 6 to 6½; East Alfred, 4½ to 4½; East Basset, 49 to 51; East Basset, 49 to 51; East Alfred, 13a. 6d. to 14a. 6d.; North Croft, 5½ to 6; North Roskear, 160 to 170; West Caradon, 123½ to 123½; Wheel Edward, 8 to 8½; Wheel Edward, 8 to 8½; Wheel Zion, 9½ to 10.

On the Stock Exchange, the following business has been transacted:

SATURDAY, SEPT. —Alfred Consols, 15; Cobre Copper, 47½.
MONDAY.—Alfred Consols, 14½; Great South Tolgna, 46½; Par Consols, 21½.
Wheat Kitty (Lentil), 23½ to 23½; Australian, 3; St. John del Rey, 11½.
TUESDAY.—Alfred Consols, 14½; Tamar Silver-Lead, 1½; Linares, 5½.—Transactions, though not officially marked: East Alfred, 4½ to 4½; Alfred Consols, 11½ to 11½.
WEDNESDAY.—Lady Bertha, 10; Portkella United, 5½; Tamar Silver-Lead, 1½.
West Caradon, 110, ex div.; Wheat Edward, 3½.—Transactions, though not officially marked: North Wheat Corfu, 5 to 5½; Hingston Down, 3½ to 3½; West

THURSDAY.—Alfred Consols, 14½; North Wheel Crofty, 5½; Cobre Copper, 47½; United Mexican, 3½.—Transactions, though not officially marked: North Roake, 160; North Wheel Crofty, 5 to 5½; East Alfred, 4 1-16; Hington Down, 1½ to 2.

FRIDAY.—Devon Great Consols, 465 to 470; Wheel Edward, 8½; Imperial Brazilian, 1K.

At Redruth Ticketing, on Thursday, 4248 tons of ore were sold, realising 29,085*l.* 13*s.* 6*d.* The particulars of the sale were—Average standard 147*l.* 15*s.*; average produce, 64; average price, 6*l.* 17*s.*; quantity of fine copper, 275 tons 18 cwt*s.* The sale at Truro, on Thursday next, will comprise 4530 tons.

At the Swansea Ticketing, on Tuesday, 2347 tons of copper ore realised 35,071*l.* 14*s.* 6*d.* The Cobre Mines sold 737 tons, for 13,559*l.* 7*s.* 6*d.* one parcel (produce, 69) realising 80*l.* 5*s.* per ton; Berehaven, 527 tons, 5899*l.* 1*s.*; Chili, 320 tons, 6326*l.* 4*s.*; Knokkmoah, 192 tons, 1902*l.* 1*s.*; Algiers, 145 tons, 1857*l.* 15*s.*; Burra Burra, 125 tons, 2665*l.* 9*s.*; Laxey, 68 tons, 540*l.* 12*s.*; Garrucha, 66 tons, 587*l.* 12*s.*; Almeria, 89 tons, 759*l.* Spanish, 54 tons, 596*l.* 9*s.*; Presamimma, 11 tons, 204*l.* 1*s.*; African, 2 tons, 58*l.* 12*s.*; Australian, 3 tons, 93*l.* 1*s.*; London, 1 ton, 19*l.* 10*s.*; Dyllifoss, 5 tons, 12*l.* 10*s.*—At the next sale, Sept. 22, 1614 tons of ore will be sold from Caba, Santiago, Sydney, Adelaide, Berehaven, Spanish, Chili, Namagana, Bagnafeld, Burra Burra, Namaqualand.

The arrivals at Swansea include—From Bilbao, 99 tons of copper ore from Avers, 139 tons copper ore; from Caldera, 530 tons copper ore.

At South Wheal Frances meeting, on Monday, the accounts showed: Balance last audit, 450*l*. 13*s*. 7*d*.; copper ore sold, 679*l*. 13*s*. 7*d*.;—Labor cost for June and July, 2577*l*. 4*s*. 9*d*.; merchants' bills, 585*l*. 1*s*.; lord's due 453*l*. 2*s*. 2*d*.; leaving balance in favour of mine, 3378*l*. 1*s*. 9*d*. A dividend of 2577*l*. 4*s*. 9*d*. was declared. Capts. W. Pascoe, J. Prisk, and H. Bennetts reported that the several stops throughout the mine continue to yield a fair quantity of ore.

at Boscean Mine meeting, on Sept. 4, the accounts for three months ending June showed—Balance last audit, 16217. 13s. 1d.; tin sold, 50517. 11s. 6d. 6737. 4s. 1d.—Mine cost, 29561. 18s. 3d.; merchants' bill, 5547. 5s. 10d.; lords' dividend, 1997. 5s.; Stannary assessment, stamps, rent, &c., 791. 12s. 10d.; coals (341 tons) 3 cwts., 2267. 15s. 6d.; balance in favour of adventurers, 23567. 0s. 8d. A dividend of 7201. (3s. per share) was declared, leaving 16361. 0s. 6d. in hand.

At Drake Wall Mining Company meeting, yesterday (Mr. W. J. Dunnford in the chair), the accounts showed a balance in favour of the adventurers £1459*l.* 13*s.* 9*d.* A dividend of 2*s.* per share was declared. The committee of management were re-elected, and the proceedings, which are fully reported in another column, terminated with votes of thanks to the Chairman and agents of the mine.

At Trelyon Consols meeting, on Sept. 2, the accounts showed—Tin sold, 7099, 10s. 11d.; Copper ore sold, 334, 7s. 6d.; 7937, 18s. 7d.—Balance last month, 257, 9s. 4d.; labour cost, Aug. and June, 4855, 5s. 4d.; docteur and chert, 33, 6s. 6d.; materials, 1751, 10s. 10d.; dues, 532, 7s. 9d.; leaving balance in favour of mine, 167, 12s. 10d. Capt. R. James and J. Trevorrow reported that they believe that in a few months more, when they had effected a communication in the 30 with the stopes in the bottom of the 30, they will increase their sales of tin. Their plant and machinery were in good condition, and working very satisfactorily.

At the Vale of Towy meeting, on Friday (Mr. J. Field, in the chair) the accounts showed—Balance last audit, £377. 11s. 6d.; lead ore sold, 2041l. 4s. 7d.; horse-whim sold, 9l. = 2050l. 4s. 7d.; labour owed, April, May, and June, 1326l. 7s. 1d.; lords' dues, 164l. 7s. 6d.; sundries, 47l. 8s. 10d.; merchants' bills, 879l. 6s. 2d.; leaving balance in favour of mine, 970l. 6s. 5d. The profits for the three months' workings amounted to 132l. 15s. Capt. S. Thomas, S. Harper, and T. Harvey

ported that from the present prospects they expected to cut a good lode in the 60 ft level, which would be in about three months from the present time. In the 50 north level the lode was producing 10 cwt. of lead ore per fm. The prospects here were very much better as they got towards Bonville's shaft. A winze sunk under the 40, which was only 15 fms. before this end, produced 8 cwt. of lead per fm. Bonville's shaft was only 26 fms. north of this winze, and cut through the lode, worth 15 cwt. of lead per fm. which cannot be worked by reason of the water being in, and which cost

not be drained until the 50 was brought on. In the 50, driven south, the lode has produced from 10 cwt. to 1 ton per fm., which would work at a low tribute; the lode was at present disordered, but an improvement might be expected ere long. There were 14 pitches being worked by 34 men on tribute. Since the last meeting they have opened about 90 fathoms of ground, and there were 140 persons employed on the mine, exclusive of carriers, &c. The sampling on the 26th inst. would be 65 tons

At Wheal Russell meeting, on Aug. 27 (Mr. J. Bayley in the chair) the accounts showed—Balance last audit, 93*l.* 1*8s.* 6*d.*; labour cost, April, May, June and July, 61*5*l.* 7*s.* 1*d.**; merchants' bills, 86*l.* 5*s.* 2*d.*; lord's dues, 23*l.* 10*s.* 8*d.*; and

unpaid on 313 torried shares, 344. 138. 66. = 9872. 108. 111. = Copper ore 100 tons 4044. 15. 3d.; call made April 9, 4144. 9s.; leaving balance against mine, 491. 6s. 6d. A call of 3s. per share was made. Captains A. Barritt and J. Bray reported that the improvement having taken place in the 62 east, they had commenced sinking the shaft for a deeper level, and that would be completed to the 74 by the end of October. The returns for the four months to next account were estimated at 140 tons, worth, according to present standard, 51. per ton, and the prospects were highly encouraging.

At Bedford Consols Mine general meeting, on Wednesday (Mr. John Rowlands in the chair), the accounts showed a balance in favour of the company of 24l. 13s. 10d. The captain's report was considered very satisfactory, and he was appointed resident agent of the mine, at a salary of eight guineas per month. A dividend of 1s. 6d. per share was made, and it was resolved that the 500 forfeited shares should be valued *pro rata* amongst the shareholders, at 30s. per share. It was also resolved

to erect suitable machinery without delay.

Dec., 25f. 1s.; salary, May, 8f. 8s.; June, 4f. 4s.; Mr. Down, discount ore bill, 15s. 10d. leaving balance in bankers' hands, 230f. 18s.; ditto in Mr. Peet's hands, 24f. 17s. 8d. A statement of assets and liabilities, including July, Aug., and Sept. cost, showed

1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979. 1980. 1981. 1982. 1983. 1984. 1985. 1986. 1987. 1988. 1989. 1990. 1991. 1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000. 2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100. 2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120. 2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140. 2141. 2142. 2143. 2144. 2145. 2146. 2147. 2148. 2149. 2150. 2151. 2152. 2153. 2154. 2155. 2156. 2157. 2158. 2159. 2160. 2161. 2162. 2163. 2164. 2165. 2166. 2167. 2168. 2169. 2170. 2171. 2172. 2173. 2174. 2175. 2176. 2177. 2178. 2179. 2180. 2181. 2182. 2183. 2184. 2185. 2186. 2187. 2188. 2189. 2190. 2191. 2192. 2193. 2194. 2195. 2196. 2197. 2198. 2199. 2200. 2201. 2202. 2203. 2204. 2205. 2206. 2207. 2208. 2209. 2210. 2211. 2212. 2213. 2214. 2215. 2216. 2217. 2218. 2219. 2220. 2221. 2222. 2223. 2224. 2225. 2226. 2227. 2228. 2229. 2230. 2231. 2232. 2233. 2234. 2235. 2236. 2237. 2238. 2239. 2240. 2241. 2242. 2243. 2244. 2245. 2246. 2247. 2248. 2249. 2250. 2251. 2252. 2253. 2254. 2255. 2256. 2257. 2258. 2259. 2260. 2261. 2262. 2263. 2264. 2265. 2266. 2267. 2268. 2269. 2270. 2271. 2272. 2273. 2274. 2275. 2276. 2277. 2278. 2279. 2280. 2281. 2282. 2283. 2284. 2285. 2286. 2287. 2288. 2289. 2290. 2291. 2292. 2293. 2294. 2295. 2296. 2297. 2298. 2299. 2300. 2301. 2302. 2303. 2304. 2305. 2306. 2307. 2308. 2309. 2310. 2311. 2312. 2313. 2314. 2315. 2316. 2317. 2318. 2319. 2320. 2321. 2322. 2323. 2324. 2325. 2326. 2327. 2328. 2329. 2330. 2331. 2332. 2333. 2334. 2335. 2336. 2337. 2338. 2339. 2340. 2341. 2342. 2343. 2344. 2345. 2346. 2347. 2348. 2349. 2350. 2351. 2352. 2353. 2354. 2355. 2356. 2357. 2358. 2359. 2360. 2361. 2362. 2363. 2364. 2365. 2366. 2367. 2368. 2369. 2370. 2371. 2372. 2373. 2374. 2375. 2376. 2377. 2378. 2379. 2380. 2381. 2382. 2383. 2384. 2385. 2386. 2387. 2388. 2389. 2390. 2391. 2392. 2393. 2394. 2395. 2396. 2397. 2398. 2399. 2400. 2401. 2402. 2403. 2404. 2405. 2406. 2407. 2408. 2409. 2410. 2411. 2412. 2413. 2414. 2415. 2416. 2417. 2418. 2419. 2420. 2421. 2422. 2423. 2424. 2425. 2426. 2427. 2428. 2429. 2430. 2431. 2432. 2433. 2434. 2435. 2436. 2437. 2438. 2439. 2440. 2441. 2442. 2443. 2444. 2445. 2446. 2447. 2448. 2449. 2450. 2451. 2452. 2453. 2454. 2455. 2456. 2457. 2458. 2459. 2460. 2461. 2462. 2463. 2464. 2465. 2466. 2467. 2468. 2469. 2470. 2471. 2472. 2473. 2474. 2475. 2476. 2477. 2478. 2479. 2480. 2481. 2482. 2483. 2484. 2485. 2486. 2487. 2488. 2489. 2490. 2491. 2492. 2493. 2494. 2495. 2496. 2497. 2498. 2499. 2500. 2501. 2502. 2503. 2504. 2505. 2506. 2507. 2508. 2509. 2510. 2511. 2512. 2513. 2514. 2515. 2516. 2517. 2518. 2519. 2520. 2521. 2522. 2523. 2524. 2525. 2526. 2527. 2528. 2529. 2530. 2531. 2532. 2533. 2534. 2535. 2536. 2537. 2538. 2539. 2540. 2541. 2542. 2543. 2544. 2545. 2546. 2547. 2548. 2549. 2550. 2551. 2552. 2553. 2554. 2555. 2556. 2557. 2558. 2559. 2560. 2561. 2562. 2563. 2564. 2565. 2566. 2567. 2568. 2569. 2570. 2571. 2572. 2573. 2574. 2575. 2576. 2577. 2578. 2579. 2580. 2581. 2582. 2583. 2584. 2585. 2586. 2587. 2588. 2589. 2590. 2591. 2592. 2593. 2594. 2595. 2596. 2597. 2598. 2599. 2600. 2601. 2602. 2603. 2604. 2605. 2606. 2607. 2608. 2609. 2610. 2611. 2612. 2613. 2614. 2615. 2616. 2617. 2618. 2619. 2620. 2621. 2622. 2623. 2624. 2625. 26

balance against shareholders of 5059. 6s. 3d. A call of 2s. 6d. per share was made. Capt. Neilson, the secretary, gave a most interesting account of the present position and future prospects of the mine. Mr. Down was appointed secretary and treasurer, at a salary of seven guineas per month. The secretary was directed to take steps for securing the amount due from the Royal British Bank.

At Tavy Consols Mining Company meeting, on Tuesday (Mr. Lundie in the chair), Mr. Codd, the secretary, stated that it was called for the purpose of forfeiting the shares in arrears of call, the number being 693, upon which 1034. 19s. was due. A resolution was passed that, in lieu of forfeiting the shares, they be placed in the hands of the pursuer, who was directed to take proceedings immediately in the Stannaries Court against the defaulters. Mr. Codd stated that he was obliged to leave London, and therefore wished to resign his office as soon as possible. It was resolved, which are referred to the committee the election of a competent gentleman to succeed Mr. Codd. The Chairman proposed a vote of thanks to Mr. Codd, for the courtesy, diligence, and ability he had displayed whilst in office. Mr. Codd considered the shareholders had gained a great deal of knowledge since their affairs had been in Mr. Codd's hands. The vote of thanks was then unanimously carried. Mr. Codd, in answer to a question, said he expected that the next sampling would be about 4000, worth of ore.

At the North Tavy Mine meeting, on Tuesday (Mr. T. C. Smith in the chair), the accounts showed a balance against the mine of 361. 1s. 5d. A call of 6d. per share was made. Mr. Codd resigned his appointment as secretary, and the proceedings, which are referred to in another column, terminated with votes of thanks to the Chairman and Mr. Codd.

At the Oola special meeting, on Monday, convened for the forfeiture of shares in arrears of call, the secretary stated that all outstanding calls had been paid. The new 30-in. cylinder engine has been set to work at Rosewarne Consols. A deputation of adventurers was on the mine, and after the engine was started a dinner took place, of which the agents and all interested partook. In the course of the evening, "Success to Rosewarne Consols" was not forgotten.

At Treowen United, in extending the 30 ft. level the north and south lode has been intersected in a course of rich silver-lead ore, worth about 100. per fm. At the Great Wheal Vor United Mines quarterly meeting, to be held on Wednesday, the accounts to be submitted will show—Balance last audit, 5240. 2s. 2d.; call received, 5714. 10s. 6d.; proceeds of tin sales, May, 4461. 0s. 4d.; June, 4032. 8s. 6d.; July, 4196. 14s. 1d.; 18,797. 1s. 1d.—Mine cost, May, June, and July, 11,350. 17s. 6d.; merchants' bills, 4397. 0s. 2d.; payments on account of leases, 1231. 17s. 6d.; Sweeney Wheel Buller on account of calls, 3099. 7s. 6d.; interest and discounts, 1332. 4s. 7d.; London expenses, including law charges, printing, auditors, &c., 4194. 1s. 1d.; leaving balance in favour of adventurers, 18631. 12s. 3d.

At the Wildberg Great Consolidated Mining Company meeting, at Cologne, on August 21 (Mr. F. Twynnam in the chair), the accounts for the year ending June 30 showed—Balance last account, 15334. 5s. 3d.; mines and smelting works, cost, interest, commissions, &c., 14,631. 11s. 2d.; 16,165. 16s. 10d.—Lead, silver, &c., 7805. 5s. 7d.; sundry receipts, 924. 2s. 3d.; leaving balance against the adventurers, 4308. 9s. 6d. The report stated that the restrictions imposed by the local authorities had been entirely removed. The ore for the smelting works from July 16 to 31 amounted to 73½ tons, and afforded the average produce of 47½ per cent. of lead, and a proportionate quantity of silver. Since the resumption of operations the whole of the details of the dressing-floors have been remodelled; and these alterations, which have been effected at a very small expense, admit of the preparation of a much larger amount of ore than was formerly possible, whilst the cost per ton of doing so has been reduced very nearly one-half. The lead sold during the year ending June 30 commanded an average price of 23½ s. 6d. per ton; whilst that of silver was 5s. 6d. per ounce. The produce during the present month will, it is believed, considerably exceed the estimate. The report and accounts were adopted. Col. David Hay, Peter Davey, and Mr. Jas. Walker were appointed assessors or assistant members of administration. Col. M. C. Chase and Mr. A. S. Wildy were re-elected auditors. The sum of 8500 thalers per annum, at present awarded to the members of the council of administration, was increased to 3600 thalers per annum. The meeting was then made special, and resolutions passed for raising 30,000l. upon mortgage debentures. Votes of thanks to Chairman and officers of the company terminated the proceedings.

A meeting of the Imperial Brazilian Mining Association directors and committee of shareholders was held on Thursday, when it was resolved to recommend the shareholders, at the meeting convened for Thursday next, to accept an offer of 15,000l. for the purchase of the company's property in Brazil. The slaves, of course, go along with the rest of the property. Of the purchase-money, 1000l. is to be paid down at once, as a guarantee of the serious intentions of the buyer, and the rest in bills at sixty days; but as the requisite arrangements, including a reference to the Brazil, will involve considerable delay, it is thought that the purchase money will not be actually divisible amongst the shareholders for some six months to come. Apparently, the carrying out of the arrangement should ensure to the shareholders a return of about 5s. per share, for the total number of shares is 10,000, of which, we believe, 500 have been forfeited. A consideration of the heavy expenses to which the company are at present liable is understood to have contributed to the decision of the directors and committee.

At the Worthing Mining Company meeting, on Wednesday, called for the election of an additional director, in consequence of an insufficiency in the attendance of shareholders, no business was transacted, and the proceedings were adjourned until Wednesday next.

The New Grand Duchy of Baden Mining Company have advices dated Sept. 7.—The men in the old shaft, sinking below the shallow level, are still getting down tolerably well, and in a very short time will cut through to the rise in the back of the adit level; this is the main point at present in operation, and the pitwork being all prepared will be speedily fixed after it is completed. At the Teufelsgrund Mine, the lode in some parts is not producing quite so much ore as for some weeks past, yet the average produce will show some advantage over the costs.

The St. John del Rey Mining Company have advices from Brazil:—
Morro Velho, July 15.—The produce for June is 18,384 oits. = 176-114 lbs. Troy and is thus derived:—
From general stamps..... 15,970from 6484 s = 2462½ 2-509
" Susanna (E. Que. Panella) 822 203-6 = 3-993
" Arrastra 993 0-148
" Fraia 600
Total 18,384 6094½ 2-637
Cost 7880. 12s. 11d. = Loss 1197. 14s. 7d.

The stone has been not only deficient in quantity, so that considerably less has been stamped, but has also been much poorer; but I trust we have seen the worst of it, and that after another month I shall be able to make a very different report.
Reduction Department.—Stamps working 30 days, average 130-37 heads; arrastra worked 24 27½ days. In my last I noticed the short supply of stone; and this continued during the last division of the month, so that only 6000 tons were stamped during the whole month; and of these 168 tons were brought in from the old refuse heap, while 22 tons of the worst kilias were thrown out. But the stone is also poorer, as shown as well by the assays as by the results of the treatment; and, therefore, the consequence of both combined is that the produce is the extreme low one above noted. And though I trust we shall have an improvement in this month (July), it cannot be to any great extent, because the same short supply of stone has continued up to the 1st of the month, and the Lyon stamps have done no duty, as, taking advantage of the short supply, they have been undergoing extensive repairs, of which they stood in great need. One side went to work again on Saturday last and the other day before yesterday, and they are working very well. Both the Powles and Addison stamps stand in need of repair, which shall be done during the present slack time, and then they will all be in capital order when we get again a full supply of stone from the mines.
FRAIA.—There is very little to be added to what was said in my last. The filling-stamp continues to work very satisfactorily, and the produce for the month (90 oits) is very fair. In consequence of the demands of the mine, and of heavy repairs at the Lyon and other stamps, very little has been done to the second set of stamps; but, as soon as these pressing, indeed indispensable, works are done, no time shall be lost in pushing forward the second set. For the same cause the launders for the sand are not yet completed quite to the stamps, when they would be self-feeding, and save the manual labour now required to collect and convey the sand from the rego.
Mina.—Since my last the different works have been going on steadily and rapidly, without any interruption. On the 2d current, while the men were underground dropping the sinking lift at the Bahu, some alarm was caused by a scale of ground coming away, but no harm was done; by the 10th inst. several pits were being put in, and all made secure. On the 11th the water was drained and the Bahu was put in. Gold extracted to date, 5309 oits., being 5101 oits. from 445 cubic feet of sand (the result of 10 days' stamping), yielding 11-36 oits. per cubic foot, and from 1884 tons of stone, equal to 2-706 oits. per ton; and 208 oits. from the Fraia.

July 31.—Capt. Bullen leaves this to-morrow for Rio in charge of nine boxes, containing 37,178 oits., equal to 337-149 lbs. Troy of amalgamated gold—6 boxes, containing each 4597 oits., equal to 37,523 oits.; 1 box, ditto, 4599 oits.; 1 box, ditto, 6 bars of metal gold, &c., &c., ditto, 300 oits.; 37,178 oits., addressed to Messrs. W. Harrison and Co. Rio de Janeiro, with instructions to them to deliver the 300 oits. per packet, to your address; and if the rate of exchange in London is under 21d. per milrel, the other boxes also; but if above 21d., then to dispose of the remainder, either by sale, or by sending it to the Mint, as they shall judge best for the interest of the company, if sold, the price not to be less than realised by the last remittance.
July 31.—Gold extracted to date, 11,734 oits., being 11,342 oits. from 945 cubic feet of sand (the result of 20 days' stamping), yielding 11-99 oits. per cubic foot, and from 4185 tons of stone, equal to 2-722 oits. per ton; and 392 oits. from the Fraia.
Reduction Department.—Stamps working 30 days, average 108-30 heads. It will be seen from the figures above that the yield per ton of stone is a little greater than that of last month, though the stone is still very poor. The assays for the second division of the month show in the ton of stone, per general produce, 4-210 oits.; west and middle caschobita, at Herring stamps, 5-828 oits.; East Quebra Panella, at Susanna stamps, 9-064 oits. Since my last there has been a stoppage of 14 hours, owing to the water being turned off from the Cristos rego, that it might be cleaned and thoroughly repaired; and advantage was taken to make a good time to do this, as the stamps, and to clean out all the wheel-pits. It was a good time to do this, as the supply of stone still being short, the stamps, by being driven at a greater speed, could easily overtake any accumulation of stone during the stoppage. A few heads of the Lyon and Herring began to work after seven hours.

FRAIA.—The produce maintains about the same rate. The preparations for the creation of the second set of stamps are proceeding but slowly, and must do so till the mechanism (smiths particularly) are free from the pressure upon them for mine work.
Mina.—The supply of stone is still short, as it can only come from those parts of the mine where, from less freedom for working, a better cannot quarry so much stone as in the wider parts, and the quality is also inferior. There has been lately a change in part of the stone in the Bahu, showing a greater admixture of arsenic and pyrites, which is considered favourable, as where such occurs more gold has also generally been found present.
Schneider's inclined plane is fast advancing to completion; in a week more it will be out of hand, and then we shall do better, I hope, both as to quantity and quality of tone. Several pillars of wood have been put in, and one of masonry is in hand.

The Wildberg Great Consolidated Mining Company have advices from Capt. 2. Walls, dated Sept. 5.—We have broken, from the mine, sent to surface, dressed, and sampled to the smelting-works, 153½ tons of silver-lead ore, of 48 per cent. produce, for August month. If we are able to carry on the work in a proper manner, I think we shall raise 150 tons for the present month, but I am sorry to say that Nos. 1 and 2 sinks in the Unbrucks level are at this moment drawn; and consequently, 26 miners who should be working on the best course of ore in the mine are now idle. I have no doubt but that this water is coming down from the surface, and I am ascertaining this without delay. In conclusion, I beg to inform you that, although our raising for the past month was so good, yet our average number of men did not exceed 50, 30 of whom were employed on dead ground.

The Liberty Mining Company of Virginia have received advices from Mr. Conquest, and in that dated Aug. 14 he states:—"Since my last I have deposited 50 tons, 19 dwts. of refined gold at the bank," and in a subsequent letter Mr. Conquest observes:—"We are doing very well, considering our exceedingly small force (19 men and boys only). We were sadly hindered last week by the heavy rains, or I should have had another bar of gold ready for deposit. I shall, however, be enabled to do so in a day or two, which will be \$1000 in three weeks. We are much improving, unaided by any chemical process whatever. I am sure I shall make this mine pay, if only properly sustained, and hope to prove it to the satisfaction of the shareholders."

The Australian Mining Company sold, at Swansea, on the 8th inst., a small parcel of copper ore, from their new property at Charlton, near Mount Remarkable, at from 30l. to 34l. per ton; its produce varying from 25½ to 30 per cent.

The Chancellorsville Company's works, we are authorised to state, will be in full operation, on the extended scale of reduction, by, at the latest, the end of the present month.

We are informed that the negotiations for the disposal of the property of the Imperial Brazilian Mining Association are proceeding satisfactorily, but it is expected the forthcoming meeting must be again adjourned. The last Brazilian mail arrived ten days before due.

In Foreign Mines, with the exception of St. John del Rey, the market has shown a decided improvement. Imperial Brazilian were sold in yesterday at 1½; Cobres Copper have fully maintained the recent improvement; Linares, Royal Santiago, and United Mexican, have been rather higher.

Our Hull correspondents (Messrs. T. W. Flint and Co.) report that, although the demand for money continues unabated, railway shares maintain their price very firmly, owing chiefly to the improving position, generally speaking, of the various lines, and the increasing disposition on the part of the public to invest in them. Should the Indian news be satisfactory, we look for a considerable improvement in shares and Consols.

Our Sheffield correspondent (Mr. George Wilson) reports that the mining share market has been very firm during the last week, particularly in Eyan and Chapel Dale shares, the former having been done at 55, with further buyers at the price, and the latter have exchanged hands several times at 3½. 6d. prem. The quotations are as follow:—Brightside and Progress Grove, ¼ to ½; Crafnant, 1½ to 1½; Eyan, 50 to 61; North Derbyshire, 2 to 2½; Peak United, 2 to 2½; and Prince of Wales, 2 to 2½.

LEADS, SEPT. 9.—We have to report another week of complete dullness in mining matters, though more confidence is being manifested, caused by good reports from some of the Cornish and Devonshire mines; we have heard of no sales, however. A few transactions in railway stocks have taken place, but only to a trifling extent; prices may be quoted as last week. It has been reported that Queen of Dart Mines shares had been offered as low as 3s. or 4s. per share, but that is not credited; about 15s. to 20s. is the price, but no sales, we believe, since the report of cutting mineral in the deepest part of the mine has been received. The cause of the decline of mining property is, I think, that few mines were held here five years ago, except the Breth Consols, which was a Leeds mine; it has been working upwards of 20 years, and is only now beginning to pay, after expending thousands. One or two gentlemen held shares in Cornish mines, which paid well. A lead mine or two in the North were partly worked by Leeds proprietors, which paid well. A gentleman came down from London who sold many shares in Mary Consols and West Phoenix, and another sold a great many shares in a Devonshire mine, all of which only made calls. Then the Fencose Mine was brought to Leeds, and run up to a great premium, by which many parties ignorant of mining suffered; this mine has since been sold, and is down in price. Then came out two other mines—Wheal Procter and Wheal James; these were ruined by the failure of the pursuer, and another mine got into difficulties by the proprietors quarrelling and disputing. In the meantime, Yorkshiremen began to open their eyes, and their mines were soon taken up—Craven Moor, Yorkshire Mining Company, Providence, Great Northern, Wensley Dale, Victoria, Merryfield, and now Helvellyn and Wheal Henry, the two latter in Cumberland, so that there is variety enough, certainly. Not one of these have ever paid a dividend, except the Craven Moor, and that paid 10d. dividend, but issued small shares to five times that amount, rather than make a call. These have been a great distrust. There are also large holders in Wood Mine, Mollard, and several Welsh mines—Goginan, Carn Brea, Vale of Towy, and Foxdale Mines, besides a few holders in Derbyshire. If any one of the mines should become rich, it would soon make confidence return again, and business would be done readily. It is believed most of the mines are good ones, if they could be properly tried, but twice too many have been brought into the market before one paid dividends.

In the Welsh Potosi Mine Company, on Thursday, Mr. Commissioner Fane, of the Bankruptcy Court, made a call of 1l. per share on 12,000 shares, with liberty to appeal. A lengthy discussion ensued as to the parties who ought to be contributors, and by which it appeared that several of the shares had been transferred to men of straw; but the Commissioner intimated that the original holders would be liable.

At the Penzance County Court, an action was brought by Mr. William Norton, Penzance, ironmonger, to recover 21s. 1d. from defendant, Mr. John Fisher, 7, Dover-place, New Kent-road, London, for goods supplied to North Ding Dong, in which he was alleged to be an adventurer, and his shares in which had been assigned to him by Mr. Hodson, wine merchant, in payment of a bill. The evidence not being sufficient to fix Mr. Fisher's liability, the plaintiff was nonsuited.

An action for libel has been commenced against the directors of the Unity Fire Association by Mr. T. H. Baylis, their late manager, in reference to a passage in their last report, published during his absence in Australia, which he considers to have contained a reflection on his character.

It is said that Mr. Coppock and the other directors of the Royal Surrey Gardens Company have made an offer in writing to resign, provided that the names of five other gentlemen willing to undertake the management of the company's affairs be submitted to them. The object of Mr. Coppock and his coadjutors is apparently to avoid the risk of continued collision with the shareholders.

ANOTHER FATAL EXPLOSION—SEVEN LIVES LOST.

WOLVERHAMPTON, FRIDAY.—Yesterday morning, at about half-past 8 o'clock, there occurred another of those fearful accidents which have lately occupied so much of the public attention, and which are the scandal of British coal mining. At that time an immense quantity of sulphur was ignited, in a notoriously fiery pit at the Gawn Colliery, under one of the Rowley Hills, the property of Messrs. Mills and Sons, who own also an adjoining pit, where it was being driven out, two lives were lost by an explosion, and other persons injured. This accident has resulted in the death of six men and a boy, and has occasioned the supposed fatal injury of two other men, who, when we were upon the spot this afternoon, were more dead than alive. At that time, also (about 4 o'clock), a large number of workmen were engaged in endeavouring to get through some 50 tons of stuff to the body of the seventh deceased, whose whereabouts was indicated by one of the two survivors, who himself was buried alive from the time of the explosion till midnight on Thursday, being miraculously preserved by a beam falling across, at such an elevation as just to save him from being crushed by the superincumbent mass.
This pit is divided into two workings—the more advanced called the Down side, and the other the Crop side. In the Crop side sulphur was found on Monday morning, supposed to have been brought there by a fall of coal, and the entrance was forbidden. It was proved to exist on Thursday morning, and the batties forbade an entrance. They had scarcely ascended, however, when the earth, in a circle of a quarter of a mile, shook violently, and flames shot up the shaft of the coal pit, and also of the stone pit adjoining, the separation between the two being blown down by the explosion. A doggy is supposed to have gone into the prohibited workings, with two other men carrying a naked light. The Mine Inspector (Mr. Brough) was busy upon the spot yesterday, and had before long cautioned the proprietors.

LEAD ORES.

Sold on the 4th September.
Mines. Tons. Price per ton. Purchasers.
Aberdovey 28 £15 10 Walker, Parker, & Co.
Dyfnogwm 14 5 0 ditto
Rhyngwyl 22 5 6 Newton, Keates, & Co.

Sold on the 7th September.
Mines. Tons. Price per ton. Purchasers.
Fronchog 130 16 10 Walker, Parker, & Co.
Cefn Brynno 72 15 10 ditto
East Daren 65 18 10 Walker, Parker, & Co.
ditto 20 18 10 Sims, Williams, & Co.
Cwm Erdd 32 18 10 Walker, Parker, & Co.
Vale of Towy 42 15 7 6 ditto
ditto 8 10 0 Locoe, Blackett, & Co.
ditto 10 10 0 ditto

Ticketing at the King's Head Hotel, Holywell, 10th September.
Mines. Tons. Price per ton. Purchasers.
Macegryddel (Talargoch) 33 16 7 6 Walker, Parker, & Co.
Costia Llys (Talargoch) 33 16 7 6 ditto
Deep Level 30 15 3 6 ditto
ditto 10 10 0 Walker, Parker, & Co.
Talaere 10 17 0 0 A. Eytton.
Rodelwyddan 5½ 14 7 6 Walker, Parker, & Co.
Brynford Hall 15 15 10 0 Newton, Keates, & Co.
Speedwell 12 15 3 6 Walker, Parker, & Co.
Stedford 10 15 10 0 Newton, Keates, & Co.
Nantymwyn 40 15 8 6 Walker, Parker, & Co.
Tynwlly 20 15 15 6 A. Eytton.
Pwllwhele 15 15 8 6 ditto
ditto 2½ 10 17 6 ditto

BLACK TIN.

Sold during the month of August.
Mines. Tons. c. q. lb. Price per ton. Amount. Purchasers.
Par Consols 138 4 3 9 £80 0 0 £11059 6 4 —
ditto 4 0 14 56 0 0 235 11 0 —
West Powey Cons. 2 15 3 13 80 0 0 223 10 8 —
Friedeaux Wood 5 7 2 8 76 10 0 411 9 2 —
ditto 0 7 1 9 40 0 0 14 13 2 —
Wh. Kitty (St. Agn.) 2 0 1 0 48 0 0 96 12 0 —
ditto 1 18 0 5 71 0 0 135 1 2 —
ditto 9 8 1 12 74 15 0 703 19 8 —
ditto 0 6 2 17 20 0 0 6 13 0 —

CORNISH TICKETINGS.—SECOND SALE IN SEPTEMBER.

Years. Tons. Prod. Amount. Standard. Ore copper. Cake cop.
1845 1923 9½ £8,847 0 6 £83 17 0 £49 10 0 £79 10
1846 2677 9½ 15,565 15 6 103 10 0 70 10 0 79 10
1847 3106 8½ 17,854 6 6 100 0 0 68 10 0 79 10
1848 3518 8½ 16,081 0 0 90 0 0 66 12 0 84 0
1849 3124 6½ 20,063 14 0 0 93 12 0 102 10
1850 3550 6½ 24,280 3 6 132 14 0 92 5 0 107 10
1851 4167 7½ 31,112 6 137 11 0 105 17 0 126 0
1852 4404 7½ 30,648 9 6 127 13 0 91 12 0 107 10
The copper in the ore expresses the net price per ton of copper paid to the miner.

COPPER ORES.

Sampled August 19, 1857, and sold at Swansea Sept. 8, 1857.

| Mines. | Tons. | Produce. | Price. | Mines. | Tons. | Produce. | Price. |
|---------------------|-------|----------|----------------------|--------|----------|----------|--------|
| Cobre 89 | 12½ | £14 1 0 | Algers 73 | 11½ | £12 17 6 | | |
| ditto 87 | 13½ | 14 4 0 | Burra Burra 44 | 18½ | 20 18 6 | | |
| ditto 86 | 13½ | 14 4 0 | ditto 38 | 18½ | 20 18 6 | | |
| ditto 85 | 13 | 14 2 8 | ditto 30 | 19 | 21 3 6 | | |
| ditto 77 | 13 | 14 2 8 | ditto 12 | 21½ | 24 8 0 | | |
| ditto 66 | 12½ | 13 10 8 | ditto 1 | 20½ | 22 10 0 | | |
| ditto 39 | 31½ | 23 7 | Laxey 63 | 7½ | 7 19 0 | | |
| ditto 37 | 21½ | 23 16 0 | Garrasch 31 | 4½ | 4 18 0 | | |
| ditto 35 | 21½ | 23 16 0 | ditto 36 | 17½ | 17 15 6 | | |
| ditto 34 | 21½ | 23 16 0 | ditto 3 | 37 | 41 5 0 | | |
| ditto 15 | 69 | 80 5 0 | Almeria 34 | 6½ | 7 19 0 | | |
| ditto 11 | 15½ | 16 11 0 | ditto 3 | 19½ | 20 18 6 | | |
| Berehaven 121 | 9½ | 11 2 0 | ditto 1 | 9½ | 10 11 0 | | |
| ditto 118 | 10½ | 11 6 8 | Spanish 47 | 10½ | 11 7 0 | | |
| ditto 115 | 10½ | 11 6 8 | Spanish 11 | 17½ | 18 11 0 | | |
| ditto 103 | 9½ | 10 14 0 | Spanish 7 | 18½ | 19 0 0 | | |
| Chili 72 | 17½ | 19 18 6 | African 2 | 25½ | 29 6 0 | | |
| ditto 60 | 18½ | 20 12 6 | Australian 2 | 25½ | 29 15 6 | | |
| ditto 57 | 19 | 21 12 6 | ditto 1 | 30 | 34 0 0 | | |
| ditto 54 | 18½ | 21 7 0 | London 1 | 17½ | 19 10 0 | | |
| ditto 53 | 14½ | 16 7 6 | Dyflife 5 | 3 | 3 10 0 | | |
| ditto 33 | 16 | 17 14 6 | Almeria 24 | 6½ | 6 15 0 | | |
| Knockmahon 98 | 12½ | 14 6 6 | ditto 17 | 8½ | 8 10 0 | | |
| ditto 94 | 5½ | 5 6 6 | ditto 11 | 11½ | 12 3 0 | | |
| Algers 73 | 11½ | 12 15 0 | | | | | |

TOTAL PRODUCE.

| | | | |
|-----------------------|-------------|--------------------|----------|
| Cobre 739 | £13,559 7 6 | Spanish 47 | £533 9 0 |
| Berehaven 327 | 5,589 1 0 | Spanish 11 | 204 1 0 |
| Chili 320 | 6,326 4 0 | Spanish 7 | 63 0 0 |
| Knockmahon 192 | 1,802 1 0 | African 2 | 58 12 0 |
| Algers 145 | 1,857 7 0 | Australian 3 | 93 11 0 |
| Burra Burra 125 | 2,665 9 0 | London 1 | 19 10 0 |
| Laxey 68 | 540 12 0 | Dyflife 5 | 12 10 0 |
| Garrasch 66 | 587 12 0 | Almeria 52 | 436 11 0 |
| Almeria 37 | 322 9 0 | | |

COMPANIES BY WHOM THE ORES WERE PURCHASED.

| | Tons. | Amount. |
|--|--------------|---------|
| Copper Miners' Company 185 | £2013 2 6 | |
| P. Grenfell and Sons 183 | 3251 10 0 | |
| Sims, Williams, Nevill, and Co. 272 | 3415 17 6 | |
| Vivian and Sons 344½ | 4932 12 0 | |
| Williams, Foster, and Co. 325½ | 4078 8 6 | |
| Mines Royal Company 183 | 1635 18 0 | |
| Spittly Copper Company 77 | 1087 12 6 | |
| British and Foreign Copper Company .. 27 | 5880 12 6 | |
| Mason and Elkington 244 | 4090 10 0 | |
| C. Lambert 140½ | 2298 7 6 | |
| Havenhead Copper Company 49½ | 965 3 0 | |
| Total 2347 | £53,071 14 6 | |

Copper ores for sale at Swansea, Sept. 22.—Cuba 95, 92, 91, 86, 80, 40, 37, 35—Santiago 100, 93, 90, 81, 66, 27, 5, 13—Sydney 41, 30, 20—Adelaide 24, 11, 4—Boro-haven 120, 100—Spanish 95—Chili 61—Nanquay 24, 10—Bampfyde 24—Spanish 9, 4, 3—Burra Burra 2—Nanquayland 1—Total, 1614 tons.

AVERAGES.

| | Produce. | Price. | Standard. |
|---|------------|----------------|----------------|
| British | 9-16 | £10 11 0 | £134 6 0 |
| Foreign | 15½ | 17 8 6 | 125 5 0 |
| <hr/> | | | |
| Sale | 13½ | £14 19 0 | £127 8 0 |
| <hr/> | | | |
| Totals—British, 792; Foreign, 1555=2347 tons (21-cwts.) | | | |

THE PROGRESS OF MINING IN 1856.

BEING THE THIRTEENTH ANNUAL REVIEW.

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Notices to Correspondents.

* * Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

FALSE QUOTATIONS.—Can any of your correspondents inform me why West Folbert's shares are quoted in your valuable Journal at 21. (business done)? I know, Sir, that you are desirous of obtaining correct information, and are constantly seeking for such. From whatever source you received your information, it is decidedly wrong. Upwards of 3000 shares were relinquished at the last meeting, in favour of the present company, at 2s. 6d. per share (see your Journal of Aug. 1). I assure you, Sir, that 2s. per share cannot be obtained at the present time; therefore, such wide discrepancies should be corrected. There are many hundred persons who used to treat mining matters carefully, but who now read your Journal, and may be misled by such quotations being imposed on you. I trust, Sir, you will either alter the quotation to 2s., or publish this letter. One who Relinquished, but was NOT yet received was 2s. 6d. Sept. 10.

TALWORTH.—With great alarm I notice that a marked improvement has taken place in the 35 fm. level. I trust this is not a prelude to a further call, as hitherto has generally been the case.—H. D.: Bedford-square, Sept. 10.

MINES AND THEATRES.—Though I cannot acquiesce in Mr. Commissioner Foulke's assertion, that those who have anything to do with mines or theatres will be ruined, yet a certain analogy exists between the two. In many places, the localities for both are bad, and not likely under any circumstances ever to afford a profitable return. Large fortunes have been acquired by mining, and the same may be observed of theatres—in both cases, when this has occurred, it has been under good management, and by practical people, who were educated for the purpose, and understood their business. In most instances where failures can be traced, it arises from the choice of a spot, none being in the least obtained, or the appointment of a manager who has no previous knowledge of the business, but possesses a considerable proportion of ignorance, backed up by an excessive stock of impudence. There are numbers of men who dub themselves miners, who have never been educated for the purpose—probably they have been brought up as shoemakers, tailors, house-painters, or carpenters. Some of these mechanics have even, in the shape of lecturers, styled themselves instructors of the people, being in many instances less informed than the audiences they were addressing. The same remarks may apply to theatres: these in general have been ruined by bad management and incompetent superintendence. So it is in all trades and professions: they must go wrong unless there is "the right man in the right place."—T. B.: Sept. 8.

EAST WHEAL GORSE.—When this mine was first started, it was to have been one of the great gins of the neighbourhood, and I purchased some shares of one of the original holders. I believe that a meeting was held last February, since which period I have seen no reports of how we are proceeding. Occasionally, under the head of British Mines, a few lines appear from the agent; this is to a certain extent satisfactory, but I trust the committee will see the necessity of affording us further and more frequent information.—G. W.: Holloway, Sept. 9.

GOLD MINING.—Of all the Californian schemes, the only one that now exists is the Quartz Reduction Company, and in about two months they will hold their annual meeting. For the last year, they have been practically at work; and although somewhat retarded, an approximate result will no doubt be arrived at. The Australian companies have been tried in the balance, and found wanting; those for gold mining in North America have given no great results, although the Liberty and the Chancellorsville promise much. As regards the latter company, we may shortly expect to hear what the quantity of stuff which they had lying on hand in Nov., 1855, has turned out. If Mr. Squires should find gold in North Wales sufficiently abundant, I trust that his experiment will be solved with less delay than heretofore has been the case with all the gold extractors, with the single exception of Mr. Hiram Berdan, who obtained gold from every ore that was brought to him, thus proving, though it might possibly be of no benefit to others it was to himself.—Droghda: Sept. 6.

RAILWAY SIGNALS.—In your last Journal, I read a notice of a proposition for signalling upon railways by distance posts and levers; but, from the brief description given, the invention appears almost as old as railways themselves. Perhaps there may be some novelty in cutting off the steam of an approaching engine, but I fear that, in practice, this part of the invention would be found valueless, as so many circumstances would have to be provided for, that no single apparatus would answer. Automotons are very well in their place; but when they are introduced injudiciously, they are dangerous in the extreme, as the slightest failure in their action may lead to the most disastrous results. The system at present in use for signalling the approach of a train to a station is as simple as could be desired, as also is the contrivance by which the semaphores are raised when the train reaches the station. It would, however, be ridiculous to have such an arrangement as should cause the train to lower the semaphores when it had arrived at a certain distance beyond the station, as the signalmen would then, of course, cease to be employed, and the lives of the passengers would be at the peril of a self-acting instrument, which would always be liable to get out of order. As to shutting off the steam of the next engine that passed, as would sometimes be necessary that the trains should be much nearer together than at others; and should the signal-posts be placed near enough together to meet all cases, the cost would be immense. I was glad to observe that the inventor anticipated difficulty in introducing his scheme, as it will prevent any disappointment on his part, should any opinion prove correct—that the invention is far from being of practical utility, or capable of application, except under extraordinary circumstances. As all inventors should be rewarded for their ingenuity, I trust the improved signaliser may meet with more success than he expects, although I doubt whether he will, from the mystery with which he endeavours to surround his discovery.—N. B.: Oct. 3, City, Sept. 7.

COPPER MINING IN SPAIN.—I can bear testimony to the accuracy of your correspondent's communication of the quantity of copper ore to be found in several of the provinces of Spain. There is, however, one grand objection to mining enterprise in that country, which is the general bad condition of the roads. In many parts of the kingdom they are but mere mole tracks, and during the rainy season almost impassable. The necessity of "hedges of obligation," and lastly, there is the excessive fanaticism and bigotry of the people, combined with a great jealousy of foreigners, and the Punic faith, which has now become a national and characteristic trait of the Spanish nation. In my opinion, there are greater difficulties in mining in Spain than in any other country of Europe, as, in addition to the deplorable ignorance of the population, every agent would have to encounter the haughty pride and the capricious arrogance of one of the filthiest generations under the canopy of heaven.—G.: Paris, Sept. 7.

SAFETY LAMPS.—Several of the Government Mine Inspectors state that locked safety lamps alone should be used where there is any chance of explosion from fire-damp, and recommend that the key should only be entrusted to the lampman; but as, if only a key is required, there is a good chance of the lamp being opened, why do not the Government enforce the use of lamps which cannot be opened without extinguishing the light, and for which no key whatever is required? I have read in your valuable Journal several notices of inventions which have this excellent provision—amongst others, those of Dubrull, Munier, and Mosard, appear suitable for all purposes, and either could be supplied extremely cheap. The objection to the use of glass, on the ground that it is liable to be broken, is now entirely refuted by Mr. Warrington Smyth's assertion, inserted in your last, that of the 15,000 in daily use in Belgium, not one explosion had ever been traced to the breaking of a glass.—G. F. W.: Hoxton, Sept. 7.

MINE SOUNDING INSTRUMENT.—We never saw or heard of such an instrument as our inquirer desires us to obtain for him. There can be no doubt but such an article could be constructed by any manufacturer of acoustic instruments. We are aware sounds may be heard underground for long distances when the wall of a lode is struck; he may repeatedly heard miners at work when they have been far away; the signal usually given to miners by blows it is well known can be heard. We see the utility of the article, and should suppose, if a flexible or trumpet-mouthed bar of metal be laid on the wall of the lode, with a hollow tube, in the manner of a stethoscope, having connection with a large hollow ball by way of tympanum, with an earpiece, would answer the purpose. The experiment is worth a trial; and should our applicant avail himself of our suggestion, we shall be obliged if he will inform us of the result; or, if he will commission us to get one made, we will gladly undertake the supervision of the work, which, probably, may be more useful than at first supposed.

BON ACCORD MINING COMPANY.—"J. T." (Glasgow).—The whole of the shares in this adventure were taken up pro rata by the shareholders in the Scottish Australian Investment Company. The property adjoins the Barra Barra Mines.

COLLIERIES INSPECTION.—In Mr. Herbert Mackworth's report I observe that there is recorded an example of the self-sacrifice of colliers in attempting to rescue their fellow-workmen in the face of the most appalling dangers. Alluding to an explosion at Coalbrook Vale, he says—"The force of the explosion having damaged the framing and carriages at the top of the downcast shaft, a considerable time elapsed before any person could descend the shaft, and the friends of the men in the pit pressed Hopkin Lewis, the fireman, to descend the upcast pit, by which the fire-damp was issuing; he replied, 'If I go down, I shall never come up alive'; but, nevertheless, after shaking hands with the persons about the pit, he descended with four other men. Two returned shortly after, and two others were with difficulty rescued, but Hopkin Lewis, having gone far in advance, was not extricated for an hour and a half, when he was found to be quite dead. Such acts as these, as Mr. Mackworth observes, should be rewarded, and were there more interest felt in this class of workmen, there is little doubt that their increased exertions would tend to diminish the number of accidents of every description."—J. J.: Swansea, Sept. 7.

MEXICAN AND SOUTH AMERICAN MINING COMPANY.—Can any of your readers explain to me the matter with this company? I see that the 25th. share has been sold on the Stock Exchange as low as 12s. 6d. The annual general meeting ought to have been held before this, and yet no notice has appeared. Surely the shareholders have a right to expect that gentlemen like Mr. Powles and Mr. Schneider, who are on the direction, would immediately call them together, and explain matters.—A SHAREHOLDER.

NORTH DOWNS MINES.—No improvement in this mine was reported in the City Article of the Mining Journal of Aug. 29. We merely stated—"North Downs shares suddenly rose from 7s. to 14s. 1s., from which it is presumed an improvement has taken place. Shares, it is said, have mostly been purchased for the country." By the report in the usual column this week, it will be seen that the mine is now improved, and it would seem as if the shares should rise in value, considering the districts in which the mines are situated, and carefully watched by parties resident in the neighbourhood.

GREAT WHEAL VOR UNITED MINES.—"An Old Subscriber" (Devonport).—It is fully expected that a call will be made at the meeting to be held on Wednesday next. Some of the shareholders suggested a call at the last meeting, as it was then considered impossible to go on without more capital.

"T. C. S." (Baker-street).—Sulphuret of nickel consists of nickel 64.76, sulphur 35.24, with traces of cobalt and arsenic. It occurs in capillary and sometimes diverging filaments of a yellowish colour, inclining to steel-grey. Its primary form is cubic, flexible, opaque, with a metallic lustre; not magnetic. Before the blowpipe on charcoal, with a good heat, it fuses into a globule, which is metallic, malleable, and magnetic, and consists wholly of nickel; but in the open tube it exhales the colour of sulphurous acid. With nitric acid it forms a greenish solution. It is found at Johangorstadt in Saxony, at Josefine mine, in Bohemia, at Andriessberg in the Harz, in Cornwall, and other places, in thin capillary filaments, filling the cavities and dispersed among the crystals of other minerals.

FAILURES OF ADVERTISERS.—We cannot publish the letter of "Purser." He is far too sweeping in his condemnation, while the remedy he suggests is open to serious objection. His plan for checking abuse would, if adopted, become inoperative, and merely change the risk with the locality. There are some very respectable, well-informed mine agents in London, and a little enquiry is only needed to render dealing with them not only "safe," but "highly satisfactory."

CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA.—"A. B." (Sheffield).—The last half-yearly meeting of this company was fully reported in the Mining Journal of July 25. The cash balance in hand on June 30 was 5037l. 6s. 7d., and the principal question at the meeting was, whether they should wind-up at once, or raise more capital to prosecute the mine vigorously. Capt. A. Fregeant having been sent to America to examine the mine, and being of opinion it was worth the large additional outlay, the shareholders present expressed a wish to proceed, and a resolution was unanimously passed that additional capital, to the extent of 20,000l., should be raised. The directors have since made a call of 2s. 6d. per share. It is intended to send out a large quantity of machinery; and we are informed that Messrs. John Taylor and Sons are consulted upon all important operations. Mining in Jamaica is only in its infancy.

UNIVERSITY DOGGERS.—There are, throughout England, numerous retail druggists, petty organists in provincial towns, &c., who sport the Ph.D. which they have obtained from Erlangen or Glessen for 15l. Does your correspondent mean to say that a retail druggist has any right or title to be called a doctor of philosophy? To use the title is a gross presumption. Dr. Stenhouse, and other others, who have in the Ph.D. infra dig., have dropped it, and they proudly use in its stead LL.D. All true chemists will follow their example ere long.—B.: Sept. 8.

CHANCELLORSVILLE GOLD MINING ASSOCIATION.—"A Sufferer" will find an announcement in our City Article, which we have reason to believe will prove correct. Further information can be had at the office of the company.

WHEAL ENNA.—As there appears a sharp controversy going on with regard to this mine, I send, for the information of those connected with the adventure, some extracts from our report of Capt. S. Secombe, who examined the mine in Nov., 1855. Although Mr. Nicholas Ennor is now condemning the management of the mine, he recommended her to his friends when the shares were quoted at 15l. or 16l. per share in the Mining Journal. Mr. John Hitchins, who has the management of the mine, is a man of excellent judgment, and a more honest, upright man there is not in Cornwall. To those who have shares I say stick to them, and do not sacrifice your property. If this be not one of the best mines in Cornwall, I will admit that I know nothing of mining.—O. M.: Exeter, Sept. 9.

Nov. 3, 1855. I have inspected Wheal Enna, and beg to furnish my report thereon. This mine is near Ashburton, Devon, on the lands of the Earl of Macleod, and the grant obtained is the most favourable one I have ever heard of, the royalty, or dues, being only 1-15th out of the profits realised. The extent of the seat is moderately large, being full 400 fms. long, from east to west, on the course of the lode, and the stratum is a light clay-slate, highly mineralised, and within a reasonable distance of the granite for the production of large deposits of copper ore. From the engine-shaft to the present end, which is about 30 fms., it may be fairly called a course of copper ore, for the greater portion of this 30 fms. the lode is 10 ft. wide, composed of quartz, prisms, gossan, and copper ore, worth full 80l. per fm. Rich parcels of copper ore are being prepared for the market, and the mine will shortly be in a position to pay large dividends.—S. SECOMBE.

CHANCELLORSVILLE GOLD WORKS.—A short time since, Mr. Evan Hopkins stated that he had been requested by several shareholders to visit these works. Great anxiety is now being manifested by several of the proprietors as to the result of Mr. Harris's experiments. Since the publication in your Journal of the reduction of 7 tons of stuff, no further progress has been reported, although we were told there was abundance of quartz belonging to the company, which had lain there for a considerable period. Mr. Evan Hopkins is now, I understand, sojourning at Chester: he has had great experience in gold mining in South America and Australia, and probably would be able to afford some elucidation as to what I presume must be the inevitable delays which have taken place at the works at Frosham. As he is so near, the expense of a report ought not to be taken into consideration, and the information so rendered will at the present time be of great utility to all interested.—PREMIUM: Camden Town, Sept. 10.

ANGLO-CALIFORNIA GOLD MINING COMPANY.—In the advertising columns of the last Journal, Mr. G. F. Goodman informs the shareholders that they must pay the contribution to the liquidators, this only being legal. The week previous, "P. P." of Poole, asks for subscriptions to resist that body; and in the same week, the Chairman of the late board calls upon the proprietors to come forward with 3s., stating that, if they do so, they will be guaranteed from all liabilities. No accounts are rendered by anyone, and the whole system is being carried out in its integrity. The cry is—Pay, and ask no questions; be satisfied that 100,000l. of your money has been spent somehow, and that debts have been incurred, which you must discharge. You have had two barristers and a solicitor among the directors, a solicitor is a liquidator, and there is the attorney of the company: surely, with all this legal array, the shareholders will obtain justice! When the scrip was allotted, it was stated that no further call would be made. I will not occupy your space by further entering into details concerning this mismanaged undertaking. Several of the proprietors are in the humbler classes of life, for the shares were sold broadcast in the provinces. How are they to act? It would be as well if some of our business and sound common sense would come forward and endeavour to extricate the company from the tangled mass of abjectly, contradiction, confusion, and chicanery, by which it is surrounded.—AN ORIGINAL SHAREHOLDER: Oxford, Sept. 9.

SUBSCRIBERS IN AMERICA.—Our friends in America are informed that they can obtain the Mining Journal by ordering it from a bookseller in any of the principal towns in the United States. Mr. Trübner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

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* * The MINING JOURNAL can be procured at our office by Eleven o'clock on Saturday morning. Newsmen, therefore, can make the necessary arrangements to have the Journal at the several stations in time to forward by the mid-day trains, enabling many of our subscribers to receive their copies on the day of publication.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, SEPTEMBER 12, 1857.

That every person should have a competent knowledge of the laws by which he is governed, and especially of such portion of them as he is, from his position, directly called upon to comply with, has never been doubted; yet there are thousands who appear to give no attention to any legal question, until they have so far infringed the law that much unnecessary trouble and needless expense is required to relieve them from the difficulties into which they have fallen. To the commercial community, no set of Acts of Parliament is of more importance than those framed for the guidance of joint-stock partnerships, whether for banking, insurance, or for general purposes; whilst to those engaged in the working of mines, or companies for carrying out industrial enterprises, the Joint-Stock Companies Act, 1856-7, and the Acts bearing thereon, are of the utmost consequence.

Upon numerous occasions we have referred in the MINING JOURNAL to the Joint-Stock Companies Act, 1856, and have used our utmost endeavour to render its meaning intelligible to all; the supplementary Act of 1857 has likewise received a large amount of attention, so that there is little doubt but that our readers are thoroughly conversant with those Acts, or at least, are sufficiently so to understand the duties imposed upon themselves individually. We have urged all shareholders in mines, not within the jurisdiction of the Stannaries, to lose no time in securing the registration of all companies in which they are interested under the Act, which offers them many advantages if complied with, and inflicts heavy penalties upon those who fail to come in under it. In a few weeks companies, other than for insurance purposes, or for working mines within the Stannaries, of more than 20 persons (not registered under Joint-Stock Companies Act, 1856-7), cease to be recognised except for the infliction of penalties, and such combinations will thenceforth become simple partnerships, each partner incurring all the responsibility of members of common partnerships, carrying on their affairs in the most disadvantageous manner. They will be liable for the whole of the liabilities of the partnership, and will be prevented from calling upon their copartners to contribute the smallest amount to reimburse them for any moneys which they may have been compelled to pay; although the payment has been made for their mutual benefit.

Reviewing the Acts which have been passed during the session recently ended, with a view to place joint-stock companies in the best possible position, and thus remove the inducement to continue partnerships of the dangerous class above alluded to, we find that the objections and differences of opinion which might have existed with regard to the Joint-Stock Companies Act, 1856, have been, as far as was consistent with the general well met; the consequence being, that the laws relating to public companies are now as comprehensive and perfect as any of which we can boast. Assuming the Joint-Stock Companies Act, 1856-7, to be understood, we may state that banking companies are required, on or before Jan. 1, 1858, to register under that Act, but cannot avail themselves of limited liability; and by the 17th section of the Joint-Stock Banking Companies Act, 1857, the registration of any company which is, in fact, a banking company with limited liability, is no protection to the shareholders, as they are declared liable to the full extent of such company's debts, together with the costs, charges, and expenses of winding-up.

Insurance companies are replaced in precisely the same position as they were in before the passing of the Joint-Stock Companies Act, 1856,—that is to say, they remain under the 7 and 8 Vic., c. 110, and new companies for insurance purposes can only be established under this latter Act, or by Royal Charter; an Act, of a single clause, having been passed repealing sec. 110 of the Joint-Stock Companies Act, 1856, which almost left insurance companies without any law to guide them, or at least, left them in a most ambiguous position as the Act by which they were governed was repealed, unless a few words in a temporary provision could be held to keep it in operation whilst sec. 2 of the same Act prevented them availing themselves of its provisions.

It has been argued that the Joint-Stock Companies Act, 1856, gave the directors of companies registered under it full power to enforce the payment of calls by the shareholders, but was not sufficiently stringent to ensure honesty and integrity on the part of the directors. This objection has been entirely removed by the passing of "An Act to make better provision for the Punishment of Frauds committed by Trustees, Bankers, and other persons entrusted with Property," which deals with fraudulent directors in the most severe manner. By this Act it is provided, that if any person entrusted for safe custody with the property of any other person, shall in any manner appropriate such property to his own use, he shall be guilty of a misdemeanour; and the same penalty is incurred by the holder of a power of attorney fraudulently converting the property thereby entrusted to him. The fourth section provides that bailies fraudulently converting property to their own use shall be guilty of larceny.

Any director, member, or public officer of any body corporate, or public company, will be guilty of a misdemeanour if he shall fraudulently apply the money or property of the company to his own use; if he shall receive the company's money or property otherwise than in payment of a just debt or demand, and shall omit to make, or cause to be made, a full entry in the books and accounts of the company; if he shall destroy, alter, mutilate, or falsify any books, papers, writings, or securities belonging to the company, or shall make, or concur in the making of, any false entry, or any material omission in any book of account or other document; or if he shall circulate, or concur in the circulation of, any materially false written statement, with intent to deceive or defraud any member, shareholder, or creditor of the company, or with intent to induce any person to become a shareholder in, or advance money or property to, such company, or to enter into any security for the benefit thereof. The person receiving any chattel, money, or security from the fraudulent officer, is also liable to be indicted and convicted of a misdemeanour, whether the party guilty of the principal misdemeanour shall or shall not have been convicted or amenable to justice. The penalty to which persons found guilty of misdemeanour under this Act are liable is (at the discretion of the Court), three years penal servitude, two years imprisonment with or without hard labour, or a fine, as the Court shall award. Civil actions do not prevent criminal prosecutions, nor do criminal prosecutions prevent civil actions, but the evidence taken in one case is not receivable in the other. If upon the trial of any person under this Act it shall appear that the offence proved amounts to larceny, he is not thereby entitled to be acquitted of the misdemeanour. And in every prosecution for misdemeanour against this Act, the Court may allow the expenses of the prosecution in all respects, as in cases of felony.

The extreme severity of this Act has led some to believe that the difficulty of finding respectable gentlemen to undertake the direction of public companies will increase, but upon carefully considering the different points of the arguments on both sides, we feel confident that there is a far greater probability of the reverse proving to be the fact. It is true that the same class of men cannot be put in office, but to all public companies this will be a positive benefit, since the majority of frauds committed upon the shareholders may be attributed rather to want of attention to their duties on the part of the directors, than to absolute dishonesty; they have permitted fraud to be perpetrated by others, but have not acted in a directly fraudulent manner themselves. The directorship of a public company will henceforth be an honourable position, because from the responsibilities incurred persons will not take office without knowing with whom they are to associate; and from the penalties of the Act extending to every officer of the company, if there be but one honest man in the management he will for his own sake see that business is properly conducted, and fraud cannot occur without all agree to commit it, since the concurrence in a fraudulent action is made equal to committing the fraud itself.

To mining, the alterations which have been made will be doubly advantageous, as scarcely any class of enterprise has suffered so severely from fraud and incompetency on the part of those in power; and the security which is now given to adventurers, by rendering those whom they have entrusted with the management of their funds criminally responsible, will place them in a more favourable position than they have ever hitherto occupied.

copied. They will change titled directors for men who are competent to manage business transactions, and who from their station in society have greater reason to maintain an unblemished character. Under these circumstances none will, we think, deny that mining has better prospects than ever of becoming the most remunerative of all speculative undertakings, and one of the most desirable classes of enterprise for the investment of capital.

The affairs of the WELSH POTRY MINING COMPANY occupied the attention of Mr. Commissioner FANE, at the Bankruptcy Court, on Thursday—the learned Commissioner having appointed that day for making a call, for the purpose of discharging the liabilities. The company was at the time of stopping divided into 12,500 shares, but the official assignee, after carefully going through the list, decided that there were only 12,000 shares liable to become contributories. It may be remembered that Mr. LORTHOUS, of Manchester, was connected with Mr. WILKINSON, the late manager, and during the proceedings it was endeavoured to show that they had acted together. Mr. HARRISON, the solicitor, stated that Mr. LORTHOUS had transferred the whole of his shares to a man named "BLACK," but whether such an individual existed he was unable to prove, as every letter and notice that had been sent to the address given had been returned; he (Mr. HARRISON) therefore contended that the name of Mr. LORTHOUS, should be substituted for BLACK. The Commissioner was of opinion that further enquiry should be made for BLACK, and additional evidence adduced, before he decided upon making LORTHOUS liable. From the length of the list of unfortunate shareholders the case occupied a considerable time, and at the conclusion a call of 17. per share was made on 12,000 shares. As we are informed the liabilities are under 5000*l.*, either a large number of defaulters are calculated on, or a considerable sum required for the law proceedings in winding-up.

A leading daily contemporary, in its City Article of Friday last, takes precisely the same view of the disasters arising from banking speculations as we have long held to mining, and which we have often expressed in our columns—viz., the fashion of the hour—the tendency there always is to rush heedlessly into investments, for no other reason than following example. This headlong impetus becomes irresistible, until the self-accumulating monster attains proportions alarming to its creators; then reaction as violent ensues; all are as anxious to get rid of the responsibilities they have incurred as they previously were to undertake them. This has been, and probably will be, more or less the history of all investments holding out brilliant hopes of success, and to which probability is attached by one paying handsome dividends—whether real or fictitious, is hardly heeded by the anxious multitude. Of such have been South Sea bubbles, railways, gold schemes, shipping, mining, banking, &c.: these have all their periodical manias.

Though these periodical panics may be looked on at the times of their recurrence as misfortunes to be deplored, yet, if properly considered, we should deem them as necessary in the atmosphere of every-day business as thunder-storms in summer: they certainly tend to remove many evils, which a long-continued state of careless or reckless trading naturally beget: the commercial horizon, after the dispersion of so many noxious elements, becomes much clearer, and adapted for healthy, vigorous exertion. Probably at no period of English history has the stability of our great institutions, our national resources, and our speculative interests been so severely scrutinised and thoroughly tested as during the last ten or twelve years, from various political and commercial causes, as well as by deficient crops and high prices.

Hosts of visionary Utopian undertakings have been scattered to the winds, numbers of unprincipled adventurers have been unmasked, exposed, and punished, to the great benefit of the world at large, to demonstration, to proof, that England's great integral interests, as well commercial as national, are sound to the core, presenting a vigorous misfortune can crush, and a vitality nothing can destroy. It must also not be forgotten that in these wholesale condemnations, these avalanches of ruin, many honestly conceived, really good and legitimate undertakings, have been overtaken and overwhelmed, without the power or possibility of resistance: so impetuous was the torrent, that scarcely a wreck was left by which to recognise their former apparent greatness.

France at this time is undergoing one of these terrible throes, brought on solely by such wild, visionary schemes of personal aggrandisement and realisation of incalculable wealth: the precipitate reaction now taking place will fearfully augment the disastrous consequences which must necessarily ensue. It would be well were they to reflect on example, and act accordingly; but we fear no advice or warning under such circumstances will be heeded: onward as ever will rush the frightened parties, without consideration or thought. At the time of the establishment of the ill-considered scheme of the Credit Mobilier, we saw the utter hopelessness and impossibility of its ultimate success, and accordingly warned our readers against having anything to do with such, to say the least, doubtful affairs as it, Russian or Austrian railway concessions or loans, and the numerous foreign schemes at the time launched in such numbers, and which were in a great measure checked in this country by the judicious conduct of the Bank of England. We now find we were perfectly correct in our surmises, and rejoice to think our countrymen will be so little embroiled in our neighbour's disaster; still from such causes the French people have nothing seriously to alarm them, more than a temporary and, perhaps, severe check to their monetary affairs; their trading and commercial relations are undoubtedly sound. Little doubt can exist that some of these salutary lessons even nations are occasionally, or some wise end, obliged to undergo.

We should ourselves profit by their present and our past experience, not to rush wildly into any new-fangled speculations, however attractive, merely because we see our fellows doing so, but to rather prefer those which have undergone the fiery ordeal of scrutiny, such as the last twelve years have afforded, and have come out scatheless. We know of no interest so thoroughly answering these conditions, both past and prospective, as legitimate British mining enterprises, for which a glorious vista in the annals of time seems to be opening out. We state this in the full conviction that our opinions on this subject are as well founded, and will be found to be as correct, as those which dictated our condemnation of the Credit Mobilier on its announcement.

Gratifying as must be the accounts from our mining districts—gratifying as must be the accounts from the manufacturing and consuming districts for metals—it is equally gratifying to us to know these results are as we had anticipated. The careful and attentive reader of the MINING JOURNAL cannot have failed to notice our frequently referred to earnings, that metals must and would advance in value—that many of our progressive mines were so far developed that it would be insane folly to ruinous waste of capital to stop or curtail their operations, assured, we were by their managers, a little more patience and capital were all that was required. We implored and urged the payment of calls, to enable these projects to be carried out with integrity. We are, therefore, not to say the mines, by their recent numerous and important discoveries, not only confirm the reality of our hopes, but inspire a confidence that will induce others to take heart, and follow the example.

Horadfoot and Holmbush are cases in point, while more recent accounts from various localities are of the most cheering description. Kelly, Wheal Edward, East Russell, Queen of Dart, Waelma, Bampfyde, Day United, Great Hewas—indeed from all parts—the news is highly cheering, and most encouraging. The dividends declared during August amount to no less than 38,604*l.*—a respectable sum for one month earnings, and this only from metallic mines, exclusive of the iron, coal, salt, clay works, which probably amount to five times that sum, irrespective of the employment they create for miners and labourers of all sorts, including sailors.

The fact of the Devon Great Consols advertising no less than 2222 tons of copper ores (more than the entire produce of the three kingdoms a few years ago) at one sale; of Dolcoath, although working continuously for more than a century, having made a discovery of tin to the value of, possibly, a million sterling, are evidences of the perfectly inexhaustible resources of mining, if properly developed, and are proofs, if any were required, of the substantiality of these securities.

The demand for their produce shows no sign of weakness; that (erratic it is true) barometer, the copper standard, is gradually rising; large quantities are in the market, larger in reserve, and hourly expected to be sent out; while the unwillingness of the smelters, both of copper and tin, to undertake contracts, are certain indications of continued prosperity. All have they done who, heeding our advice, purchased these metals when they were temporarily depressed. We at the time felt convinced that they were reduced from no legitimate causes, and so expressed our opi-

nions. We ever held the conviction that British mining interests were never in a sounder position, or one more worthy the confidence of the public. Freed, as they assuredly are, of most of the spurious speculations palmed off as mines, and being now so well known in contradistinction to foreign gold bubbles, called mining companies, it will be found they will advance considerably in public estimation, and prices enhance accordingly, despite the ill-mannered, injudicious, and, we hope, ignorant remarks of a judicial functionary, alluded to last week, who, whatever might have been his private opinion, should have had wisdom enough under his wig to have been silent on them. We doubt, after such intemperate remarks, if a person labouring under difficulties, and embarked in such affairs, would not be able to show good grounds why a judge expressing such a bias should not adjudicate in his case. Justice should be blind and even-handed, which cannot be where private pique or disappointed hopes are allowed to interfere. It will be astonishing to us if the poor actor, too, does not take out his revenge, and place the worthy on the stage in this extraordinary and unfavourable view.

We think the prior part of this article is convincing enough to stultify such foolish (thoughtless, we hope) assertions. We can assure him, and our readers too, there are many as honourable men in mining as grace the ranks of any sphere of life, including in its interests the names of all classes, from royalty itself (the Crown and Duchy being some of the largest), down to the adventurer and hard working tributary, who, though humble in their vocations, are not bad judges of mining.

In the MINING JOURNAL of last week we published an abstract of the reports of the Government Inspectors of Coal Mines, which showed that during 1856 the number of accidents from all causes amounted to 1023. About 40 per cent. of these casualties occurred from falls of roof and coal, 23 per cent. from explosions, 20 per cent. from accidents in shafts, and 17 per cent. from various descriptions of accident. From this it would appear that the working of the Coal Mines Inspection Act has been highly satisfactory; and, as the proportion of deaths from explosion has now, notwithstanding two or three very disastrous occurrences, been brought below that of the deaths from falls of roof, and is but 3 per cent. higher than the deaths in shafts, we may anticipate that the improvements in the system of working, and the elevation of the colliers in an educational point of view, will ere long render mining little more dangerous than other mechanical occupations.

The importance of the information contained in the reports is very great, as it affords a ready aid both to scientific and practical men to attempt improvement in the direction where it is most required. Forty per cent. of the total accidents have arisen from falls of roof and coal, and in some instances the casualties of this class have even exceeded the number which happened in previous years, whilst in few districts have they materially diminished. Much necessarily depends upon the care and attention of the colliers themselves, and no material diminution can be hoped for while the same amount of recklessness as at present exists continues, whatever steps may be taken by the masters. It is, however, very probable that by improvements in mechanical appliances greater safety might be secured, and by strict supervision the general and special rules of every colliery may be enforced to an extent which would be highly beneficial.

With respect to explosions, much has been done in the way of providing efficient safety-lamps, all that is required being their general adoption in all collieries in which fire-damp is known to exist. From the remark of Mr. WASHINGTON SMYTH, with reference to the MUESELER lamp, it is evident that the objections made to the use of glass lamps are altogether without foundation, and by the use of the inventions of DUBOIS, MOZARD, or MUNKER, all tampering with the lamp while in the colliers' hands is entirely prevented—it being impossible to open either of these lamps without extinguishing the flame. Light has hitherto been the great inducement to the collier to remove the top from his lamp, but all lamps of the MUESELER class give considerably more light than a candle, and therefore such an objection on the part of the collier should be unheeded. In his report, Mr. MACKWORTH states that no very destructive explosion has ever occurred even from a defective lamp; that the cost of providing, maintaining, and superintending safety-lamps to the owner is about three farthings per ton of coal, and that 3*d.* per ton would amply recompense the collier for any possible loss of time or work that might arise from their use; so that there is comparatively nothing to prevent their immediate and general introduction.

The loss of life from accidents in shafts may be considered of a very preventable character, as the majority of them may be traced to carelessness or recklessness on the part of the sufferers themselves. Upon this subject Mr. WYNN remarks that "the loss of life in shafts has been great—much too great, and is mainly owing to the old-fashioned method of landing coals at the top of the pit by wagon or 'runner,' instead of having guides and catches, which allow of a large portion of the pit being covered at all times." He finds that "few lose their lives by falling down shafts where guides and cages are used." From this it is evident, that by adopting only the best known contrivances the casualties may be considerably diminished. As Mr. WYNN reports there is a general disposition in his district to carry out practical suggestions, we may presume that in other districts a somewhat similar feeling prevails; and, therefore, the accidents in shafts will as materially decrease as the explosions have hitherto.

From a most extravagant economy it was thought by some, previous to the passing of the Coal Mines Inspection Act, that, to a certain extent, the carelessness of the employed increased the profit of the employer, owing to an apparently larger return for a given expenditure; but, happily, the effect of the bill, and the exertions of those entrusted to carry it out, are rapidly dispersing these false notions. We regret to find that there are still some who hold their old opinions, and that foremost in the rank of these anti-reformers is Mr. HEATHCOTE, of Apedale, who, although a county magistrate, sets the law at defiance, abuses the Government Inspector, and compels him to refer to his conduct in his official report. The amelioration of the condition of the collier is confidently anticipated, from the fact of a more intelligent class of butties taking the place of the ignorant and reckless ones who formerly held office, and it is to be hoped that increased intelligence at Apedale will cause the Inspection Act to be, in future, better observed.

In our last Journal we briefly alluded to the objections of Sir JAMES ELPHINSTONE to iron ships: in his opinion they are less secure than those constructed of wood. In a subsequent communication he states, that if it had not been for the peculiar circumstances, and the ready means of obtaining all the requisite engineering appliances, it might have fared differently with both the *Great Britain* and the *Tyne*; he further alludes to the *Birkenhead* and the unlucky *Transit*. This last vessel we will by no means accept as a type of what iron ships should be; her defects have been pointed out, her mishaps are a matter of history; the authorities were told she was not seaworthy; her disasters ought to have taught them that, in the face of public condemnation, she ought not to have been employed; she was, however, a pet of the Admiralty. Sir C. Wood was determined to convince every one they were wrong; and, despite protests and warnings, dispatched her to sea: the sequel we are all acquainted with, and unless revived by some pertinacious Member in the ensuing session, the probability is that we have heard the last of the wretched *Transit*. The superiority of iron vessels has been generally acknowledged; some of them have made extraordinary passages, and we need only allude to the work which was performed during the late war by the *Himalaya*; this, however, it must be remembered, was only purchased by the Admiralty in their need, and therefore whatever credit is due to her, there is none redounds on the gentleman who sits in Whitehall.

If iron ships are so defective as Sir JAMES ELPHINSTONE would lead us to imagine, it appears but a sorry fate awaits the *Great Eastern* mammoth ship, about to be launched in the ensuing month; her enormous machinery and capabilities will avail but little, and this monster will be liable to greater casualties than any ship constructed of timber. If Sir J. ELPHINSTONE'S premises are correct, the engineering skill of Messrs. BRUNEL and SCOTT RUSSELL, backed as it has been by the British Association, will only result in a costly and stupendous experiment to risk life and property.

We have no such gloomy forebodings. In the majority of cases where iron ships have been lost it has mainly been owing to their defective construction, and the inferior material of which they were composed. Instead of our ironmasters having devoted their attention to this important branch of industry, and furnished the best metal for the purpose, it has been comparatively neglected, and hence the inequality of the plates which in many instances have been observed in these vessels.

Mr. JOHN CLARK, jun., of Liverpool, who has devoted great attention to this subject, and whose communications we have occasionally drawn attention to, has now prepared a working model, 6 feet long, by which he

can lucidly point out how iron ships can be built so as to ensure not only speed but safety. The attention of the Belgians has been attracted to the matter, and the Société COCKBURN has lately built a fine screw steamer of 3000 tons burthen, which, within the last few days, has been floated on the waters of the Thames. Owing to the high tariff in America, iron ship building in the United States has received a great check: from this circumstance alone we should imagine that a greater impetus would be given for the construction of vessels of that description in this country. We have the materials at command, and the men who are capable of carrying out any work which may be entrusted to them; and by properly availing ourselves of the elements we possess, it is reasonable to suppose that not only can competition be distanced, but pre-eminence maintained.

The wooden walls of old England have proved efficacious in their time; by their instrumentality we obtained the maritime supremacy of the world—this we must hold; but, in order to do so, it is necessary to adopt every improvement that may arise, and render our royal and mercantile navy the most efficient, as it is the most numerous. This is emphatically an age of iron; and that metal, fostered by engineering skill, has worked wonders in the present century. There can be no question but that iron vessels are capable of further improvement; to effect this we must not trust to Government alone: when they feel the pressure from without, a movement in the right direction may be expected from them, but until that occurs, memorials and representations are but so much waste paper. British enterprise must, as it has hitherto done, depend on its own exertions and untiring energies. The subject we have treated of is one of national importance; it concerns more particularly, however, our ironmasters, shipwrights, and merchants, and we trust that by a skilful combination of the powers they possess, fewer accidents to life and property will occur, and by these means our material industry will be encouraged, and our national wealth considerably augmented.

The Australian July mail is still out, but may possibly be brought from Alexandria with the India bags, due here on Sept. 15. The *Columbian*, which brings it, is now ten days overdue, and her arrival is looked for with much interest and some anxiety, inasmuch as it is thought possible she may bring intelligence of another ministerial crisis in Victoria, arising out of the Lands Bill. The *Melbourne Age* of May 26, the latest date to hand, expresses its apprehension that serious consequences will ensue, as both parties are so violent in their exertions and determination to carry or to reject the measure. It is a Government bill, and opposed strenuously by Messrs. O'SHANASSY and DUFFY, supported by the interests of the "diggers," now a powerful party, and all the town populations, while the Executive have the full support, of course, of the "squatters," or the landed proprietors, who of themselves, though numerically weak, are strong in a political sense; besides which, their ramifications with the merchants as the suppliers of the raw material, and large consumers of the manufactured article, enable them to bring a powerful combination to bear against the opposition. The whole population of Victoria, according to the recent census, is 414,000, of which only 800 are "squatters," but such is their power, that they are considered equal in parliamentary strength to the rest of the country. The object of the bill is to continue to them their pre-emptive right of purchasing the whole, or portions, of the vast extent of territory which they hold at a mere nominal rental, and which is considered unjust towards the general population, and obstructive to the progress of the colony. The Legislature had adjourned from June 24th to the 30th; and, although there were only a few days to intervene, it was thought that much would be done by both parties to support their respective views. It was on this measure that the House sat from 4 p.m. to 12 o'clock the following day—an extent of continuous discussion unparalleled in parliamentary annals. If the bill be carried by the Government, it is possible that serious riots may occur—in fact, a little colonial revolution. Such is the tenor of our private letters.

The Railway Committee had not made its report; but if it did, it is not to be supposed that any consideration could be given to it during such general excitement.

The statistical accounts from South Australia are highly satisfactory, and show that the steady reliance on, and the substantial development of, its three staple productions of corn, wool, and copper, gives it great commercial weight, as respects the other Australian dependencies, in its transactions with this and other countries. We find during the past year its progress has been most remarkable in comparison with its sister colonies. Within 12 months it has doubled its exports. In 1855 the total declared value of the produce of the colony shipped from its ports was 688,953*l.*; while in 1856 the amount was 1,398,367*l.*, in almost equal proportions as respects the three principal commodities—grain and flour, 556,741*l.*; wool, 412,163*l.*; and copper, 408,021*l.*, which together make a total of 1,376,925*l.* from the general exports, the balance of 21,421*l.* being made up by live stock and unenumerated articles. The imports during the last year are set down at 1,205,069*l.*, showing, consequently, an excess of exports over imports of 181,856*l.* The general business of the province is likewise in a flourishing condition. After defraying the whole of the liabilities up to March, 1857, there was a surplus of upwards of 100,000*l.* at the disposal of the Legislature. The revenue for 1856 amounted to 456,000*l.*

Notwithstanding that as yet no remunerative gold fields have been met with in South Australia, its commercial advance is much more marked than that of Victoria, with its extraordinary yield of the precious metals; for scarcely any excess of shipments are shown in 1856 as compared with 1855 in the returns from that colony, demonstrating, therefore, clearly that while the Victorians have been neglecting agricultural development, the South Australians have not departed from the more staple occupations to search for gold, and have been fully rewarded by the great yield of cereal productions; to an extent, in fact, equivalent in benefit to the result of gold workings in Victoria, when the difference of population is considered. It is argued, and apparently with much force, that although Victoria, with its numerous gold fields, and large yield of the precious metals, has produced in the aggregate a great amount of wealth to the inhabitants, yet, taking into consideration the vast number of hands thus employed, and the distribution of the wealth amongst that number, the sister colony of South Australia, with its comparatively limited population, has yielded even greater wealth by its agricultural and animal productions, apart from its vast supply of copper.

The President of the Board of Trade of Victoria, Mr. MOORE, has given notice in the Legislature of that colony of the intention of the Executive to place a proposition on the estimates for a grant of a sum of money to act on the recommendation of the geological surveyor, with respect to assumed deposits of coal at Point Richard, near Portarlington; at Swan Bay, near Queenscliff; and on the borders of Lake Connewarre, as reported to the Government in October, 1856. In the event of the vote being accorded favourably to the Government, and of which there was no apprehension, it was determined to advertise for tenders for boring forthwith, that no delay might occur in the investigation of this important question of the existence of coal, and to test the value of such carboniferous deposits. The two first-named places are in close proximity to each other in Port Phillip Bay; Lake Connewarre is inland. Sanguine views were entertained as to the result. It is necessarily a matter of vast importance, for if coal be discovered, especially on the borders of Port Phillip Bay, immense advantage will accrue to the shipping interests of the colony especially, and indeed to the public generally. At the present moment the coal consumed is forwarded from this country, or from Sydney. In the latter place it is worked to a considerable extent, and gives an advantage of moment to that colony over Victoria. In one of the mail steamers, now on her homeward voyage, an experimental trial, we are informed, is being made to test the quality of the Sydney coal, as compared with those now used. It is represented as possessing the same chemical properties as those exported from Wales for steam purposes, being highly bituminous, forming a good coke, leaving little ash, and nearly free from sulphur. If coal seams be opened and worked in Victoria, and of which there is every probability, a very material feature will be added to the already extensive trade in various articles of consumption and export, and there really seems no limit to the advantages in prospect for this flourishing dependency of this country.

Through the same channel of information we are informed likewise that a rich vein of copper ore has been met with in the vicinity of Portland Bay, which is on the coast of Victoria, with every appearance of being extensive. This is another important announcement. Hitherto the sister colony of South Australia has monopolised the production and export trade of this article of commerce; and although Victoria has been so extraordinarily rich in the precious metals, the other colonies have not been prolific, so that a discovery of copper is an important consideration.

The postal communication with our Australian colonies is a subject which engrosses great attention on the part of our merchants, and deservedly so. The route proposed, via Panama, is to be effected in 53 days during eight months of the year, and 56 for the remaining period—that is between Southampton and Melbourne, via Sydney and New Zealand. The existing route, via Suez, is 55 days only between the same places, and 50 between Melbourne and Melbourne all the year round, and with adequate arrangement it might be effected within 40 days, so that no benefit would accrue by the substitution of the new for the old route, as some correspondents have supposed was in contemplation, but the few additional days in the transmission of letters via Panama will be of no moment, if two mails per month be secured by the adoption of the proposition of the Royal Mail (West India) Steam Packet Company. Mr. WATSON, the gentleman who proceeded to the colony as the representative of this association, has now returned, and as we mentioned in our last, and all necessary steps are being taken to bring this matter into operation with every expedition. The Melbourne Chamber of Commerce has not, however, acceded to the views of the Royal Mail Company, inasmuch as it was thought that Mr. WATSON had assented to terms with the Government of New South Wales which would give unfair advantage to that colony; that a conditional contract had been entered into between Mr. WATSON and the Executive of New South Wales, for seven years, for a subsidy on the part of the latter for 65,000*l.* annually, of which New Zealand is to provide 15,000*l.*; the steamers to run between Panama and Sydney, touching both ways at a New Zealand point, and a branch steamer to take on the bags to Melbourne. In fact, the Melbourne merchants require that the termination of the voyage from Panama should be their own city, in the same manner as Sydney now does the route via Suez, and this will be

found embodied in the following resolutions, passed by the Melbourne Chamber of Commerce at a meeting held for the discussion of this matter:—

1. It is considered expedient that a monthly steam communication, via Panama, with Great Britain should be established.
2. That the contract for performance of this service should be subject to open competition.
3. That the British Government, on the part of the colonies, should execute the contract with the parties engaging to perform the service.
4. That an essential condition should be, that Melbourne shall be the terminus of the trunk line, in the same way as Sydney is the terminus of that via Suez.

It is, therefore, clear from the foregoing that the Royal Mail contract will be with Sydney and New Zealand. To remove these local jealousies, it would be better to adopt the suggestions made by ourselves in our Journal of July 18—that the route via Suez should terminate at Melbourne, and that via Panama at Sydney—thus giving each place a priority of information each month, and leaving the transmission of the bags between Melbourne and Sydney, and vice versa, to be effected by local steamers. The shortening of the Suez route, by stopping at Melbourne, would enable the steamers to call at Port Lincoln or Nepean Bay, to drop the Adelaide bags, and thus satisfy the urgent want of the South Australians, who complain of this neglect in postal communication; added to which, it would be a solid reason for requiring a subsidy from the Government of South Australia, and so lessen the cost to the other colonies for the conveyance of their letters.

THE IRON AND COAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

SEPT. 11.—The improved demand for manufactured iron spoken of last week still continues. The works are now fully employed throughout the district, and some firms are compelled to make extra exertions to supply the demand for bars. This activity is the result of the receipt of large orders both for export and for the home market, the latter, probably, being most urgent in its demands. The requirements of Lancashire for bars are just now particularly pressing, and it is almost difficult to keep pace with them. Whether this is only a temporary, or is a permanent improvement, remains to be seen. The recent hot weather considerably reduced the make of finished iron whilst it continued, and the present briskness may be simply the result of the deficiency thus occasioned, though it appears likely to continue. It proves what is stated on every hand, that stocks of iron are everywhere extremely low. Pigs at present remain quiet at former rates, but a continuance of the improved demand above alluded to must necessarily impart more animation to this branch of the trade. Notwithstanding the diminished make, consequent upon the hot weather impeding the operations of the puddler, stocks of pig-iron are generally low throughout the district.

A very praiseworthy effort is being made to establish a Working Men's College in this town. A number of gentlemen of superior education, several of them holding University diplomas, have formed themselves into a council of gratuitous teachers, and have taken premises for the purpose of carrying on classes in various branches of literature and science. But one thing appears to be wanting to assure the success of this effort, and that is a body of working men desirous of availing themselves of the advantages which the proposed institution will afford. On this point some people shake their heads, and say that "If you want to collect working men, you must make eating and drinking a conspicuous feature;" but though with reference to a large portion this is undoubtedly true, it is hard to suppose that in this large population of skilled artisans a sufficient number cannot be found to make a beginning in so excellent a work.

Extensive operations for the drainage of valuable mines in this neighbourhood have just been brought to a satisfactory termination by Messrs. Dimmack and Marten, proprietors of the Parkfield Furnaces and Mines. The property occupies an elevated site to the east of Wolverhampton, and extends thence to Bilston. Viewed in reference to drainage, it forms part of a triangle about two miles square in area, which by the dislocation of the strata from elevation and depression is isolated from the mineral properties adjoining by extensive faults, filled with clay, impervious to water. At its base is the great sandstone fault, and other coal fields bound it on the two sides, the apex of the triangle extending to near the Great Western Railway station at Bilston. Up to five or six years ago this triangular area was drained by two water-engines, the one known as the Sandy Gay engine, belonging to the Parkfield Company, the other the property of a firm which owned and was working another part of the minerals lying within the same triangular area. This latter engine suddenly ceased to work, and the consequence was that the former being unequal to the task of lifting the great quantity of water running into this large drainage pound, the water gradually rose. The shaft of the Parkfield Company had been sunk to the depth of 150 yards, and the water accumulated until it was from 90 to 100 yards deep, drowning out the new mine coal, 7 ft. thick; the fire-clay coal, 7 ft. 6 in.; the bottom coal, 11 ft.; and the mealy grey coal, about 1 yard in thickness. The ironstone measures submerged were the getting-rock, the poor robins, the white ironstone, the balls, the blue flats, and diamonds. These measures are of a very superior character, the two last being the best found in the district. At the height above alluded to the faults which had hitherto confined the water to the triangle before described ceased to be impervious to water, and as this property occupies a very elevated site, it began to flow rapidly into the adjoining or Millfield pound, filled up that, putting a stop to all the mining operations, and from thence made its way into the Stow Heath pound. This occupied some eight or nine months, but during this time the proprietors of that mine in the last-named area had taken time by the forelock, and had so increased their pumping power as to enable them to cope with the stream that began to flow rapidly into their pound. Had this not been done, the consequences must have been very serious, extensive works in the neighbourhood of Bilston and Wolverhampton deriving their supply of minerals from the last-named mines.

The natural consequence of this state of things was that the value of the Parkfield estate was greatly deteriorated; operations being necessarily confined to the minerals lying within 50 or 60 yards of the surface. It was in this state when purchased by the present proprietors, Messrs. Dimmack and Marten; and, although it was by very many regarded as a perfectly hopeless task, they determined, after careful calculation, and acting upon the advice of men of experience, in whom they confided, to make an effort to recover the valuable minerals which were submerged. So convinced was the Millfield Company that the drainage of the Parkfield pound was hopeless, that they had actually removed their engine. Operations, however, were commenced by the Parkfield Company for the purpose of draining their pound. The power of their engine was augmented threefold by increasing the diameter of the pumps from 13 to 16 in., by lengthening the stroke, and by so altering the engine as to enable it to work 11 or 12 instead of 6 or 7 strokes each minute. After some time spent in preliminary operations, pumping was commenced in April last year, and in a few weeks the water was so far lowered that the new mine coal and the getting-rock ironstone were drained. Several difficulties, however, interposed to prevent the realisation of the immediate success which this first result promised. The gradual removal of the old lift, pipe by pipe, in a narrow shaft, and replacing them by new lengths, was a very difficult and tedious operation. In addition to this, it was found that the water had, during the year it had lain in the pound, absorbed a considerable quantity of freed sulphuric acid, and other impurities, which rapidly corroded the iron of the pumps and apparatus, and it was found necessary, in consequence, to substitute three brass barrels, weighing upwards of a ton each. A new and very ingenious method of balancing the rods, by means of a chain and wheel instead of a balance tip, was adopted, and this proved much cheaper, more effective, and far less cumbersome than the original plan. Up to the end of July last, from the completion of all these improvements, the quantity of water raised averaged daily 1,200,000 gallons, or sufficient to fill a pond 1½ acre in extent and a yard deep, each day. The water was pumped into the canal, and entering it at the highest level was of considerable value to the Canal Company, sufficient being supplied to fill the locks about twenty-eight times each day. The water has now been drained to the bottom of the shaft, a depth of 160 yards, and the roadways and workings are being cleared, preparatory to re-working the measures which have been so long under water. These operations have directly drained an area of nearly 1000 acres in extent; but, in addition to this, the proprietors of the Millfield Collieries are preparing to replace their pumping engine, so as to re-open their mines, now that the water ceases to flow from the Parkfield pound into theirs, and the proprietors of the Stow Heath Mines will be able greatly to reduce their expenditure in pumping. As an illustration of the extent to which the value of mining property will be enhanced by the result effected by these operations, it may be observed that the minerals belonging to the Parkfield Company alone which will thus be rendered available are expected to yield a supply sufficient to keep their furnaces in operation for an additional period of 20 years beyond the time which the consumption of the upper measures would have taken—in other words, the success of this spirited enterprise will enable the proprietors of that company to produce 500 tons of pig-iron per week for this period, in addition to the yield of the upper measures. This case forms no exception to the general rule in such operations,

that many will share the benefit who took no part in the risk and expenditure, but several of the proprietors of mines affected by the operations thus happily concluded intimated at an early stage of the proceedings their intention, in case success should crown the attempt, to contribute towards the cost, which amounts to about 5000*l*. The above simple recital of the facts needs not to be lengthened by any eulogium upon the skill, enterprise, and perseverance which have thus encountered and successfully overcome a difficulty which most people regarded as insuperable.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

SEPT. 10.—There is no material alteration to notice in the position or prospects of the Iron Trade this week. There is a steady demand for malleable iron, and full prices are easily obtained.

The Coal Trade is increasing, and as the season is advancing we may expect an augmented demand: no alteration in prices.

A terrific explosion took place on Sunday morning last in an ironstone pit at Birdholme, near Chesterfield, now being worked by the Wingerworth Iron Company. It appears that a quantity of foul air had accumulated in the old workings, and on Sunday morning it forced its way through a body of water, and came in contact with the fire of the ventilating apparatus, and exploded with a fearful report, which was heard for a mile distant. The force of the explosion broke the interior workings of the pit, and threw portions of the debris up the shaft. The engine-man had been in the pit about 20 minutes before the accident occurred. Being Sunday, there was no other person employed in the mine, otherwise the result would have been fearful to contemplate. There were about 22 men usually employed in the drift where the explosion occurred. As soon as possible after the accident, preparations for repairing the pit were commenced, and the work has now been renewed.

A fatal accident occurred on the ironstone railway connected with the Milton Ironworks, at Elsecar, near Barnsley, on Monday. A young man named George Helliwell, in the employ of Mr. Norton, of Heyland, was engaged in the conveyance of ironstone from Tankersley to the Milton Ironworks, when he was caught between the buffers and fearfully smashed, and died soon afterwards.

Thos. Cresswell was charged by Mr. James Eley, colliery agent to Mr. A. M. Mundy, "that he did on Aug. 25, in a coal mine, at Shipley, use a naked light, where safety-lamps are ordered to be used, to the utmost peril of the lives of the miners employed in the said pit." He was committed to gaol for one month, with hard labour.

Lead mining in Derbyshire is progressing very satisfactorily. The Eyam Mining Company will have another large sale of ores soon. The shares have advanced. The Chapel Dale shares are increasing in value, and have been sold at 3*l*. 1*s*. 6*d*., 10*s*. paid. The North Derbyshire Mine, at Wren Park, is progressing well. The mineral property adjoining the Mill Dam Mine is being inspected, with a view to adding it to the Mill Dam Sett. The prospects of this company are highly favourable.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

SEPT. 10.—In the absence of any interesting feature to record in the positions of the Iron and Coal Trades, we have little news to chronicle, with the exception of several more casualties. The collieries of South Wales already rank among the first in the number of accidents which take place, and the coroners and Government Inspectors find their services in very general requisition. The offices are far from being sinecures. On Friday last Mr. Charles Collins held an inquest on the body of a lad who had been crushed to death in the Cwm Du Colliery, Llansamlet, two or three days previously. The duty of the deceased was to attend to the signals, and when loaded wagons went up the incline he was required to turn the points, which permitted the empty wagons to descend. On the day of the accident he forgot to perform his task, and the consequence was that the empty and loaded wagons met, and crushed him between them. Death was, of course, immediate. The coroner's enquiry was adjourned for the purpose of obtaining time to give the requisite notice to the Government Inspector. The second accident to which we have alluded was fortunately unattended with fatal consequences. Six men were working at the Penydarren Bridge level, when a large quantity of rubbish suddenly gave way, and completely enclosed the labourers. At this time they were about a mile away from the mouth of the level. Other hands were immediately brought to the spot, and set about extricating them, but, owing to occasional falls while they were so engaged, ten hours elapsed before the afflicted men were released. It is said that a horse remains in the level alive, but it will take a week to liberate him. Provender is supplied to the unlucky animal through a hole, with which he regales himself with great calmness. The earth has been propped round, so that no more can fall in upon him. Beyond an occasional cry of distress, he bears his unpleasant confinement with exemplary patience, and surveys the preparations made to free him with manifest interest.

The reports of the Government Inspectors and Commissioners furnish some curious information concerning the mining districts. With regard to this part, the statistics are the reverse of satisfactory. The number of deaths in our mines has increased, while few additional efforts appear to have been made to prevent this great mortality for the future. It was remarked in the Journal last week that the explosions at Cwmtillery and Cymmer swelled the list greatly, but after making every allowance for these, the number of deaths appears very great. This may partly be accounted for by the peculiarly fiery nature of the coal fields, and by the careless manner in which lights are used. According to the testimony of Mr. Herbert Mackworth, the mines in which the most numerous accumulations of fire-damp existed are those where candles were used. Thus the greatest carelessness is shown in the most dangerous places. So far from adopting extra precaution against risk, the workmen neglect to take any, and imperil their lives with the greatest indifference. It is sometimes pleaded as a reason for using naked lights that the colliers can work with much greater celerity by their aid, but this assertion is not supported by facts. The difference in the saving of time is found to be very slight, even where there is any at all, and a trifling additional allowance would be ample compensation. But when, combined with gross carelessness in the use of lights, we find ventilation utterly neglected, the evil becomes indeed a serious one. It was said by a correspondent of the Journal last week that the writers who complained about imperfect ventilation are not in a position to suggest any plan for the removal of the difficulty. This is scarcely the truth. The complaint generally is that owners will not adopt the systems of ventilation we at present possess, while the new inventions are wholly unheeded. We last week referred to the ventilating fan at the Abercarn Collieries, which is found to work with such success, but it is far from being in general use. It has undoubtedly preserved safety in a very fiery seam, and besides its other advantages has the merit of being worked at an insignificant expense. The first cost is almost the only one. At Abercarn the pit in which the fan is used is sunk to a depth of nearly 300 yards, and about 500 tons a day are raised from it. On an average, 45,000 cubic feet of air are circulated through the mine, part ventilating the upper, and part the lower workings. The whole apparatus is set in motion, as we intimated last week, by a small non-condensing engine. Here, then, is the most perfect ventilating machinery ever constructed, if owners choose to avail themselves of it. Surely there can be no just grounds for the statement that no suggestions can be offered for securing safety.

It is satisfactory to find from Mr. H. S. Tremeneere's report that the assertions respecting the Risca Collieries are unfounded. It has been said that the hands "were demoralised by the truck system," but we have not heard the complaint repeated recently. The present managers are acquitted of all blame by the commissioner. There are, however, some features connected with this truck system in some parts of South Wales which demand attention, and before long we shall devote a few remarks to the subject. Mr. Tremeneere animadverts on the practice of employing females below ground in certain districts, which, he truly says, is on the increase. They are mostly girls, some of them of tender years. The custom is fraught with mischief, and the law should be more stringently enforced to put a stop to it.

The sale of collieries at Bristol mentioned in our last takes place this day. We shall present particulars in our next.

The important operation of attaching the iron road-way at the Neyland terminus of the South Wales Railway to the floating pontoon was effectually accomplished on the 8th inst. This iron road-way is fastened at one end by massive iron hinges to the stone pier, and at the other to an enormous pontoon floating in deep water, alongside of which steamers lie

at all times of tide, and as it rises and sinks by the ebb and flow of the tide, the road-way becomes level or inclined. The affair was completed in the most satisfactory manner, and now passengers embark and disembark both comfortably, safely, and with the greatest facility. Every accommodation is being consummated; an hotel is in rapid progress; additional elegantly-fitted and furnished waiting apartments and refreshment rooms are being provided. Irish mails will be forwarded in a few days by this route.

STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

SEPT. 10.—The stock markets have been temporarily influenced to a downward movement by the settlement of the stock account, which has been in course of arrangement during the past week.

The estates of the late Marquis of Thomond, in the counties of Clare and Cork, will be sold on the 8th, 9th, and 10th December in the Encumbered Estates Court. This is one of the largest properties brought into that court since its establishment, the Clare estate alone comprising over 40,000 acres.

The mechanical section of the British Association was presided over by the Earl of Rosse, one of the greatest patrons of science and scientific institutions. One of the most important papers read before this section was that by Mr. Mallet, "On the Construction of Monster Guns," in which he referred to the 36 in. mortars made by him to the order of Government during the war with Russia. Mr. Mallet produced numerous diagrams to aid the description of the construction of his gun, which involved high mathematical as well as mechanical principles. He considered wrought-iron as the best and cheapest material for artillery, and he gave the following as the relative cost of a gun of 1 ton weight, which in cast-iron would cost (say) 1*l*.; in bronze, 10*l*.; in German steel, 2*l*.; and in wrought-iron, only 15*s*. A gun of wrought-iron would be but one-fifth of the weight of a bronze gun. His paper did not take into consideration other elements, such as wear and tear, and the cost of transport. Mr. Fairbairn had never seen a more perfect piece of workmanship than Mr. Mallet's gun, and he considered, along with Mr. Bonnie, C.E., that the most suitable material for guns was cast-iron of best quality. Capt. Blakely, R.A. differed from Mr. Mallet very slightly in his mode of constructing large guns, which was to form the interior of cast-iron, placing over it rings of wrought-iron at a white heat, hammered together, and that a nine-pounder, constructed on this principle, and from which 150 rounds were fired, had been tested with every satisfaction at Woolwich.

It now remains to be seen, by practical experiment, whether Mr. Mallet's opinion of the strength of wrought-iron in guns be superior to cast-iron, and it is a problem on which some further light may be thrown before the British Association again meet.

Mr. James Barton, engineer to the Dublin and Belfast Junction Railway Company, described the principles on which the Boyne Bridge had been constructed. It having been ascertained by scientific investigation that such and such portions would be subjected to certain amounts of strain, each portion of the bridge had been constructed accordingly, so that all the parts of this bridge were more nearly proportioned than was usual, or even necessary, in works of a similar nature. All the iron employed in its construction was obtained from Staffordshire, and amounted to 740 tons, at a cost of 2*l*. 10*s*. per ton. The dimensions of this bridge are—Height above high-water mark, 90 ft.; width of centre span, 250 ft.; of the two side spans, 150 ft. each.

Mr. J. Crawford read a paper "On the Effects of the Gold of Australia, and California." The principal results sought to be established were, that the enormous quantities of gold and silver suddenly thrown upon the market during the last nine years have not produced a proportionate depreciation in the price of these metals, and rise in prices, and that the cause of this arises from the capacity of modern industry to increase indefinitely the impetus given to manufactures and commerce by the discovery of the precious metals. The experience of the last nine years leads to the conclusion that the great fall in prices commonly supposed to have taken place in the 16th and 17th centuries, after the discovery of the American mines, if it really took place, did not arise from the cause, but from the growth of industry, the general progress of society. Mr. Crawford pointed out that, unless new mines are discovered, the proportion of gold and silver yearly imported to the old stock will be diminishing gradually, and that in any case the industrial development will absorb the new supplies.

Prof. Cairnes, in a paper "On the Effects of the New Gold Field, as an Instrument of Purchase, on the Production and Distribution of Real Wealth," considered the effect of the increased quantity of gold as money, in the production and distribution of real wealth—meaning by real wealth, all valuable things, minus money, which, he added, might be called nominal wealth. He noticed two conflicting theories on the subject. One school of political economists contend that an increased quantity of money produces no beneficial effect, but that, so far as it produces any effect, it is a mischievous one; the ultimate result will be a general rise of prices, which will benefit nobody, except those under obligation to pay, or those having a claim to receive, a certain quantity of money. This theory, he thinks, correctly describes the final result, but does not explain the phenomenon during the transition from low to high prices. Another school of economists look upon every increase of gold as a blessing, as it produces, as they contend, by occasioning an increased demand, a corresponding increase of wealth. After pointing out the fallacy involved in this view, Prof. Cairnes proceeded to supply the defect in the first theory by showing that very important results are produced during the transit of the stream of gold over the entire world. Those whose incomes are the first to rise will be benefited at the expense of their fellow-men. Therefore, his final conclusion is, that the so-called effect of the new gold is to alter the distribution of real wealth, but not directly to add to its aggregate amount. The President said there was something peculiar in the search after gold; and even though it turned out that the aggregate of the gains of the gold diggers was less than that of any other class of workers, yet still persons would be seduced by the temptation of the few great prizes that might have been gained in the search for gold, overlooking the great number of failures. He remembered hearing it remarked that it was a common saying in Peru, that if a person worked in a copper mine he was likely to make a fortune, that if he worked in a silver mine he might gain a little, but that if he worked in a gold mine he was sure to be ruined.

INDUSTRIAL PROGRESS ON THE CONTINENT.

[FROM OUR PARIS CORRESPONDENT.]

SEPT. 10.—Speculation is still languishing from the cruel effects of the section. Like another Dido, she sighs for the ardent caresses of her *Amor* who has sailed away to "fresh woods and pastures new." The Temple of Mammon, that formerly was thronged to suffocation with crowds of eager and reckless votaries, is now forsaken, and looks more like the Temple of Solitude than its former self. Men of studious habits, deep in the mysteries of the Chaldeans, come here to withdraw from the noise of the city, and to be enabled to pursue the faint and slender thread of their researches in silence and without interruption. A few of the high priests—*convoites*—who appear as though they had stepped out from the Assyrian *basins* *de la* *Nievi*, and disguised themselves in modern costume, lounge about, hovering around the deserted shrine, and exchange cabalistic signs with one another. These are the Children of Israel who come up to the Bourne, as the countrymen in Judea go up to the place of weeping, by the ruins of the Temple, to mourn over their departed glories. In addition to the drip of this source of wealth and splendour, there are wailing and gnashing of teeth among them for one of them, and that one, a great man in Israel, is under the hand of affliction. The Credit Mobilier has fallen—fallen from its high estate, and Isaac Periere sits in sackcloth and ashes. What the news came about Thurneysen's liabilities the Credit Mobilier shares fell, as mentioned in my last, 30 frs., and subsequently 70 frs.; on the day of the month they were at 955 frs.; they are now quoted at 855 frs. and even as low as 845 frs. Efforts are made to keep them afloat, nevertheless they appeared to have acquired so great a specific gravity that they less constantly sustained by aid from without, down they go. If the scheme ever reposed upon a solid foundation, and not upon the shifting sands of credit, there is no reason for this fall. The bankruptcy of the directors ought not, and could not, affect the stability of the enterprise were the constitution sound, for it pays, or has paid, 208 frs. 75 cents upon shares of 500 frs., which, but a short time since, were at 1900 frs., and even on one or two occasions shot beyond 2000 frs.—that is, were at 40 per cent. premium. Nothing has occurred since then, within the knowledge of the public, to depreciate the shares: for aught that is proved to the contrary, they may produce the same amount of profit next year. The company has realised large profits is unquestionable, or else how could these enormous dividends have been paid? Had they been paid out of capital, after the fashion of the Royal British Bank, the 60,000,000 frs. subscribed would have been swallowed up by this time—no very pleasant prospect to shareholders.

Your readers are aware that the most successful operations of the company have been in patronising various undertakings, in subscribing large numbers of shares. Consequently, the patronised concerns are likely to find themselves in a very awkward predicament; for should the Credit Mobilier be obliged to realise its securities, the market will be flooded with shares in enterprises in which it is interested will suffer an enormous depreciation. This is stated to be felt, and the patronised concerns, knowing how they are bound up with the Credit Mobilier, are alleged to exert every nerve to keep the shares of the latter afloat; hence their buoyancy. The present aspect of affairs has, of course, affected all the shares of stock. The Three per Cents. have gone down to 66 90 frs., and the Shares fell 45 frs. Railway Shares fell in proportion during the same part of the week, but have since slightly recovered.

In the Metal Market there is not much to report. A large order for

$\frac{d}{dt} \left(\frac{1}{r^2} \right) = -\frac{2}{r^3} \frac{dr}{dt}$

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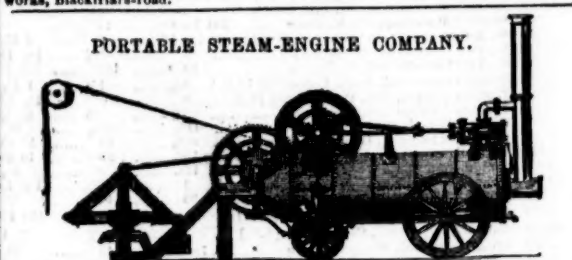
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| Shares. | Mines. | Paid. | Last Price. | Present. | Dividends per Share. | Last Paid. | Shares. | Mines. | Paid. | Last Price. | Present. | Dividends per Share. | Last Paid. | |
|---------|---|-------------------|-------------|---------------|----------------------|------------|---------|---------------|-------|---|----------|----------------------|------------|---|
| 5120 | Alfred Consols (cop.), Philistia [S.E.] 21. 11s. 10d. | 21s. | 13 1/2 | 14 1/2 | 12 1/2 | 13 0 | 20 | Aug. 3, 1887. | 5144 | East Caradon (copper) | 2 1/2 | 1 1/2 | 2 1/2 | 3 |
| 1624 | Bailledown (tin), St. Just | 11 1/2 | 4 | 4 | 12 1/2 | 10 0 | 0 | 0 | 5000 | East Cornwall Cons. (tin & cop.) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 6020 | Bedford United (copper), Tavistock | 21. 6s. 6d. | 4 | 4 | 12 1/2 | 10 0 | 0 | 0 | 5000 | East Forey Consols | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 240 | Bosman (tin), St. Just | 20 1/2 | 100 | 105 | 21 0 | 0 | 0 | 0 | 5000 | East Frognah | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 200 | Botalack (tin, copper), St. Just | 20 1/2 | 27 1/2 | 260 20 | 410 50 | 3 0 | 0 | 0 | 5000 | East Goumna (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1200 | Brightdale and Frognah Grove, Derbyshire | 3 | 4 | 4 1/2 | 4 1/2 | 3 0 | 0 | 0 | 5000 | E. Gunns Lake & B. B. (cop.) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 100 | Bryndall Hall (lead), Flint | 20 | 80 | 70 1/2 | 13 0 | 0 | 0 | 0 | 5000 | East Hender (copper), Crown | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1000 | Bryntall, Llandilo, Montgomeryshire | 7 1/2 | 2 | 1 1/2 | 0 50 | 0 | 0 | 0 | 5000 | East Providence (tin), Ury Lel. | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 420 | Budnick Consols (tin), Ferran | 6 | 6 | 6 | 0 10 | 0 | 0 | 0 | 5000 | E. Rosewarne (cop., tin), Gwinnar | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 600 | Bwlch (silver-lead), Cardiganshire | 31. 1s. 6d. | 1 | 1 | 0 10 | 0 | 0 | 0 | 1000 | East Rosewarne (tin), Crown | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1000 | Carn Brea (copper, tin), Illogan | 15 | 60 | 40 1/2 | 235 10 0 | 3 0 | 0 | 0 | 12000 | East Tamar (all-ld.), Beaufort | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 3048 | Carnyorth (tin), St. Just | 4 1/2 | 5 | 5 1/2 | 0 15 0 | 0 | 0 | 0 | 350 | East Trefusis (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 300 | Cefn Cwm Brynno (lead), Cardiganshire | 33 | 25 | 33 1/2 | 3 0 | 0 | 0 | 0 | 119 | East Wheel Agar | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 200 | Collacombe (copper) | 5 | 110 | 100 110 | 85 0 | 0 | 0 | 0 | 6000 | East Wheel Cliff (cop.), Kea | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 255 | Conduvor (copper), Fintin, Camrose [S.E.] | 20 | 110 | 100 110 | 85 0 | 0 | 0 | 0 | 10000 | East Wheel Robert (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 30000 | Craven Moor, Limited (lead), Yorkshire | 30 | 140 | 150 | 95 0 | 0 | 0 | 0 | 4000 | East Wheel Russell, Tavistock | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 120 | Cwmystwith (lead), Cardiganshire | 60 | 140 | 150 | 95 0 | 0 | 0 | 0 | 5000 | Fee Donald (lead), Fintin | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 280 | Derwent Mines (silver-lead), Durham | 300 | 150 | 150 | 122 0 | 0 | 0 | 0 | 5000 | For Trevelyan (t. & c.), Limited | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1024 | Devon Great Consols (cop.), Tavist. [S.E.] | 1 | 450 | 450 480 | 375 0 | 0 | 0 | 0 | 5000 | Frank Mills, Devon | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 672 | Ding Dong (tin), Gwilt | 32 1/2 | 25 | 20 32 1/2 | 16 7 1/2 | 1 | 0 | 0 | 5000 | Gallit-y-Frith, Redlyn (Limited) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 170 | Dolcoath (copper, tin), Camborne | 357 1/2 | 310 | 300 320 | 935 0 | 0 | 0 | 0 | 5000 | Garreg (lead), Flint | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 13900 | Drake Walls (tin, copper), Calstock | 17. 19s. | 2 1/2 | 2 1/2 | 0 13 6 | 0 | 0 | 0 | 4000 | Gawton (copper), Tavistock | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 300 | East Daren (lead), Cardiganshire | 32 | 100 | 100 | 30 0 | 0 | 0 | 0 | 6000 | Gellibrith (all-ld.), Cardigan | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2048 | East Falmouth (lead) | 3 1/2 | 3 1/2 | 3 1/2 | 0 2 6 | 0 | 0 | 0 | 1024 | Gillar (tin), St. Erth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 128 | East Pool (tin, copper), Pool, Illogan | 34 1/2 | 340 | 340 | 200 0 | 0 | 0 | 0 | 4000 | Great Caradon (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1024 | East Wheel Margaret (tin, copper) | 6 1/2 | 10 | 10 11 | 0 5 0 | 0 | 0 | 0 | 80000 | Great Crinall (cop.), St. Austell | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 3700 | Exmouth (silver-lead), Devon | 41. 14s. 6d. | 5 | 5 | 0 5 0 | 0 | 0 | 0 | 4000 | Great Drogan (cop.), St. Austell | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1400 | Eyan Mining Company (lead), Derbyshire | 5 | 60 | 59 1/2 | 14 13 1/2 | 1 | 0 | 0 | 15000 | Great Hewan United (tin) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 4940 | Fowey Consols (copper), Tywardreath | 4 | 7 | 7 | 41 4 1/2 | 0 | 0 | 0 | 12000 | Great Onslow Consol., Camelford | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 4415 | General Mining Co. for Ireland (cop., lead) | 3 1/2 | 2 1/2 | 2 1/2 | 1 0 0 | 0 | 0 | 0 | 1024 | Great Sheba Consol., Stoke Cleland | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2000 | Goginan (silver-lead), Cardiganshire | 7 1/2 | 15 | 10 12 | 22 0 | 0 | 0 | 0 | 12000 | Great Stridgill, Whitechurch | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1024 | Goumna (copper), St. Cleer | 13 1/2 | 15 | 10 12 | 0 7 6 | 0 | 0 | 0 | 14000 | Great Tregone Consols, Altarnun | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 243 | Grambler and St. Aubyn (copper) | 109 1/2 | 90 | 80 90 | 4 0 | 0 | 0 | 0 | 3120 | Great Wheel Alfred [S.E.] | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 6000 | Great South Tolgus [S.E.] | 2 1/2 | 16 1/2 | 16 1/2 | 0 16 0 | 0 | 0 | 0 | 5120 | Great Wheel Badden (tin) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2866 | Great Wheel Vor (tin, cop.), Helston [S.E.] | 7 1/2 | 3 1/2 | 3 1/2 | 0 5 0 | 0 | 0 | 0 | 6000 | Great W. Wh. Busby (cop. & tin), Kenwyn | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 119 | Great Work (tin), Gernoe | 100 | 140 | 140 | 221 10 0 | 7 | 0 | 0 | 1024 | Great Wheel Fortune, Breage | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1024 | Herodfoot (lead), near Liskeard | 8 1/2 | 8 1/2 | 8 1/2 | 2 12 6 | 0 | 0 | 0 | 3000 | Gwinnar Consols (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 6000 | Hingston Down Consols (copper), Calstock | 3 1/2 | 3 1/2 | 3 1/2 | 2 16 0 | 0 | 0 | 0 | 9600 | Gwydyr Park Consols, Llanrwst | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1000 | Holyford (copper), near Tipperary | 11 | 8 1/2 | 8 1/2 | 4 2 6 | 0 | 0 | 0 | 512 | Halnamanning and Croft Gwilt | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2300 | Isle of Man (Limited) | 25 | 42 | 42 | 54 17 3 | 1 | 0 | 0 | 8192 | Hawmoor (tin, cop.), Calstock | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 76 | Jamaica (lead), Mold, Flintshire | 34. 13s. 6d. | — | — | 380 0 | 0 | 0 | 0 | 1000 | Herward United (lead), Flint | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 20 | Laxey Mining Company, Isle of Man | 1000 | 1000 | 1000 | 1420 0 | 0 | 0 | 0 | 6000 | Hill Bridge Consols, Calington | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1800 | Levant (copper, tin), St. Just | 2 1/2 | 85 | 85 90 | 1062 0 | 0 | 0 | 0 | 6000 | Huckworthy Bridge (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 500 | Lewis Mines (tin, copper), St. Erth | 51. 15s. 11 1/2d. | 3 1/2 | 3 1/2 | 0 10 0 | 0 | 0 | 0 | 6000 | Kelly Bray (ld. cop.), Callington | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 400 | Lisburne (lead), Cardiganshire, Wales | 15s. | 120 | 120 | 208 10 0 | 3 | 0 | 0 | 6000 | Kewick (lead), Portiscale | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 9000 | Marke Valley (copper), Caradon | 41. 10s. 6d. | 3 | 3 1/2 | 0 5 6 | 0 | 0 | 0 | 6000 | Lady Bertha Consols [S.E.] | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 5000 | Mendip Hills (lead), Somerset | 3 1/2 | 1 1/2 | 1 1/2 | 1 7 6 | 0 | 0 | 0 | 1024 | Leeds & St. Aubyn (tin, cop.) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 3000 | Merrily (lead), Somerset | 3 1/2 | 1 1/2 | 1 1/2 | 1 7 6 | 0 | 0 | 0 | 1024 | Leland Consols (tin) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1800 | Miners Mines (Limited) | 2 1/2 | 85 | 85 | 21 0 | 0 | 0 | 0 | 44 | Lambeth Consols (all-ld.) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 30000 | Mining Co. of Ireland (copper, lead, iron) | 7 | 15 1/2 | 15 1/2 | 12 15 6 | 0 | 0 | 0 | 13000 | Llandudno (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 8000 | Nantos and Penrhyn, Limited (63 1/2 shares) | 1 1/2 | 1 1/2 | 1 1/2 | 0 1 6 | 0 | 0 | 0 | 1024 | Mill Pool (tin, cop.), St. Hilary | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 4000 | Nether Heath, Westmoreland | 2s. | 1 1/2 | 1 1/2 | 0 2 0 | 0 | 0 | 0 | 7500 | Mixon Great Consol. (cop.), Leek | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 470 | Newtons Mining Company, Co. Down | 30 | 35 | 35 | 48 0 | 0 | 0 | 0 | 16000 | Mollard (lead), Limited | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 200 | North Pool (copper, tin), Pool | 33s. 8s. 10d. | 70 | 60 70 | 324 0 | 0 | 0 | 0 | 10000 | Mollard (cop.), South Moulton | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 140 | North Rosegar (copper), Camborne | 501. 7s. 6d. | 150 | 160 170 | 750 0 | 0 | 0 | 0 | 4207 | Mouton's Bay Consols, Marazion | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 6000 | North Wheel Bassett (cop., tin), Illo [S.E.] | 15 | 15 | 15 | 13 13 0 | 0 | 0 | 0 | 647 | Nant-ar-Nelle, Llandover | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 9000 | Par Consols (copper), St. Blazey [S.E.] | 1 1/2 | 21 | 20 1/2 21 1/2 | 29 14 0 | 1 | 0 | 0 | 1500 | Nant-y-Car (cop.), nr. Rhydyr | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 500 | Peak United (lead), North Derbyshire | 7 1/2 | 2 1/2 | 2 1/2 | 4 10 0 | 0 | 0 | 0 | 320 | Nant-y-Car (cop.), nr. Rhydyr | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1000 | Phoenix (copper, tin), Llanthorne | 100 | — | 270 | 224 10 0 | 30 | 0 | 0 | 6400 | New Crow Hill (lead) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1000 | Polberro (tin), St. Agnes (Preferential) | 15 | — | 270 | 224 10 0 | 30 | 0 | 0 | 2400 | New Machno Slate and Slab Co. | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2500 | Providence Mines (tin), Ury Leland | 204. 13s. 3d. | 80 | 85 90 100 | 65 11 1/2 | 1 | 0 | 0 | 8000 | New Treleigh Consols, Redruth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 5500 | Rhoswyl and Bacheidon (lead) | 11 1/2 | 12 | 12 1/2 13 1/2 | 0 10 0 | 0 | 0 | 0 | 4000 | New W. Wh. Vor and E. Wh. Metal | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 512 | Rosewarne United (copper, tin), Gwinnar | 12 | 32 1/2 | 32 1/2 | 33 10 0 | 1 | 0 | 0 | 1024 | North Buller (cop.), Redruth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 13000 | Roskilly Consols (cop.), Whitechurch [S.E.] | 1 1/2 | 1 1/2 | 1 1/2 | 0 10 0 | 0 | 0 | 0 | 2000 | North Downs (cop.), Redruth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 250 | South Caradon (copper), St. Austell | 3 1/2 | 3 1/2 | 3 1/2 | 474 0 | 0 | 0 | 0 | 1350 | North Fowey (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 120 | South Crinall (copper), St. Austell | 19 | 285 | 285 | 60 0 | 0 | 0 | 0 | 2500 | North France (cop.) [S.E.] | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 250 | South Tolgus (copper), Redruth, Cornwall | 16 | 130 | 130 | 74 0 | 0 | 0 | 0 | 1356 | North Grambler, Redruth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 490 | South Wheel Frances, Illogan [S.E.] 18s. 9d. | 250 | 240 250 | 240 250 | 267 5 0 | 0 | 0 | 0 | 120 | North Lasey (lead) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 1024 | Spearne Consols (tin), St. Just, Cornwall | 3 1/2 | 4 1/2 | 4 1/2 | 8 6 0 | 0 | 0 | 0 | 2000 | North Levant (tin, cop.), St. Just | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2800 | Spearne Moor (copper), St. Just | 23s. 7s. 8d. | 15 | 15 | 4 5 0 | 0 | 0 | 0 | 512 | North Penha-darva | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 979 | St. Aubyn and Grylls (cop., tin), Breage | 51. 14s. 1d. | 1 | 1 | 0 17 6 | 0 | 0 | 0 | 1024 | North Rosewarne, Gwinnar | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 20000 | St. Day United (tin and copper) | 9 | 1 1/2 | 1 1/2 | 0 1 6 | 0 | 0 | 0 | 1024 | North Tavy (copper) | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 9000 | Tamar Consols (tin), St. Ives | 80 | 165 | 160 170 | 910 0 | 0 | 0 | 0 | 1024 | North Wheel Busby | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 6000 | Tancoat Consols (all-ld.), Boreston [S.E.] | 4 1/2 | 1 1/2 | 1 1/2 | 4 13 6 | 0 | 0 | 0 | 1024 | North Wheel Croft [S.E.] | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 6000 | Tincoft (copper, tin), Pool, Illogan [S.E.] | 9 | 4 1/2 | 4 1/2 | 8 11 3 | 0 | 0 | 0 | 1024 | No. Wh. Gilbert (cop.), St. Erth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 2048 | Treban (silver-lead), Menheniot | 1 1/2 | 20 1/2 | 21 | 1 15 0 | 1 | 0 | 0 | 6144 | N. Wh. Robert, Sampford Spiney | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 512 | Trevelyan Consols (tin), St. Ives | 11 1/2 | 20 1/2 | 21 | 1 15 0 | 1 | 0 | 0 | 2400 | North Wheel Trevelyan | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 96 | Trevelyan (copper), Gwennap, Cornwall | 32 1/2 | 65 | 55 65 | 4677 15 0 | 5 | 0 | 0 | 1240 | N. Wh. Unity (cop.), Gwilt | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 120 | Trevelyan (copper), Gwennap, Cornwall | 15 1/2 | 20 | 18 20 | 403 13 6 | 2 | 0 | 0 | 4096 | N. Wheel Wrey Consols, St. Ives | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 4000 | Trevelyan (copper), Bodmin | 12 1/2 | 3 | 3 | 0 5 0 | 0 | 0 | 0 | 6000 | North Wrey and Julia | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 4096 | Trevelyan (silver-lead), Menheniot, Cornwall | 2 | 1 1/2 | 1 1/2 | 1 12 0 | 0 | 0 | 0 | 4096 | Okel Tor (lead), Calstock | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 100 | Trumpet Consols (tin), near Helston | 40 | 50 | 50 | 55 0 | 0 | 0 | 0 | 1000 | Old Tinner's (tin), Leland | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 400 | United Mines (copper), Gwennap [S.E.] | 40 | 150 | 150 170 | 61 5 0 | 2 | 0 | 0 | 512 | Old Tolgus United (cop.), Redruth | 1 1/2 | 1 1/2 | 1 1/2 | 3 |
| 20000 | Val of Towy (lead), Carmarthen [S.E.] | 1 1/2 | 1 | | | | | | | | | | | |